A STUDY ON THE DERMOSCOPY AND QUALITY OF LIFE OF MYCOSIS FUNGOIDES AND COMPARISON OF DERMOSCOPY OF EARLY MYCOSIS FUNGOIDES WITH PLAQUE PSORIASIS AND DISCOID ECZEMA

A dissertation submitted in the partial fulfilment of the rules and regulations for MD Branch XX (Dermatology, Venereology and Leprosy) examination of the Tamil Nadu Dr. M.G.R Medical University, Chennai, to be held in May 2022

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DECLARATION

I hereby declare that the dissertation entitled **"A study on the dermoscopy and quality of life of mycosis fungoides and comparison of dermoscopy of early mycosis fungoides with plaque psoriasis and discoid eczema"** conducted at Christian Medical College, Vellore is my original research work done in partial fulfilment of the rules and regulations for the award of the M.D. degree (Branch XX) in Dermatology, Venereology and Leprosy of the Tamil Nadu Dr M.G.R Medical University**.**

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This is to certify that the dissertation entitled **"A study on the dermoscopy and quality of life of mycosis fungoides and comparison of dermoscopy of early mycosis fungoides with plaque psoriasis and discoid eczema "** is a bonafide work done by Dr. Surya Mary Mathew towards the partial fulfilment of rules and regulations for MD degree (Branch XX) in Dermatology, Venereology and Leprosy examination of the Tamil Nadu Dr. M.G.R Medical University, to be conducted in May 2022.

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LIST OF ABBREVIATIONS

AECTCL- Aggressive epidermotropic T-cell lymphoma

ATL- Adult T-cell leukemia/ lymphoma

BSA- Body surface area

C-ALCL- Primary cutaneous anaplastic large cell lymphoma

CCR- C-C Chemokine receptor

CD- Cluster of differentiation

CHOP-Cyclophosphamide,Hydroxydaunorubicin (doxorubicin), Oncovin (Vincristine) and Prednisolone

CLA- Cutaneous lymphocyte associated antigen

CTCL- Cutaneous T-cell lymphoma

DLQI- Dermatological life quality index

EASI- Eczema area and severity index

EBV- Epstein Barr Virus

FMF- Folliculotropic mycosis fungoides

HRQoL- Health related Quality of life

IQR- Interquartile range

IRB- Institutional review board

IRR- Incidence rate ratio

JAK/STAT- Janus kinase and signal transducer and activator of transcription

MF- Mycosis fungoides

NHL- Non-Hodgkin’s lymphoma

NOS- Not otherwise specified

NK- Natural killer cells

PASI- Psoriasis activity and severity index

PCL- Primary cutaneous lymphoma

PCR- Polymerase chain reaction

PP- Plaque psoriasis

PUVA- Psoralens and ultraviolet light A

QoL- Quality of life

SCNV- Somatic copy number variations

SS- Sezary syndrome

TCR- T-cell receptor

T_{CM}- Central memory cells

Th- T-helper

T_{MM}- Migratory memory T-cells

T_{RM}- Skin resident memory cells

WHO-EORTC- World Health Organisation- European organisation for research and treatment of cancer

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INTRODUCTION

Cutaneous T-cell lymphomas (CTCLs) consist of a heterogeneous collection of Non-Hodgkin's lymphomas (NHL) that arise from skin-tropic memory T lymphocytes (1). CTCL encompasses such diverse presentations as Sezary syndrome in which patients present with erythroderma, lymphadenopathy and circulating clonal malignant T cells and mycosis fungoides, in which malignant cells reside primarily in infiltrated skin lesions. Mycosis fungoides, the most common type of cutaneous T-cell lymphoma is generally associated with an indolent clinical course and is characterized by clinical features like well-defined erythematous scaly patches and plaques evolving into tumor often resembling other benign inflammatory conditions (1). Distinction of mycosis fungoides from other benign dermatologic conditions can be challenging, requiring inputs from clinical presentation, pathologic evaluation and molecular studies.

Dermoscopy is a non-invasive technique that aids in diagnosis and differentiation of various inflammatory skin conditions by recognising various characteristic dermoscopic features (2–4). The subtle surface features that are highlighted can give valuable information to the treating physician and can replace skin biopsy in patients not fit to undergo minor invasive procedures. Very little literature is available on the dermoscopic features of mycosis fungoides. Thus, our study focuses on the dermoscopic features of mycosis fungoides and its comparison with its close mimics, plaque psoriasis and discoid eczema in our population which would help in early recognition, diagnosis and thus optimal management of mycosis fungoides.

AIMS AND OBJECTIVES

AIM:

To study the dermoscopic features of mycosis fungoides and compare the features of early mycosis fungoides with that of plaque psoriasis and discoid eczema and assess the quality of life of patients with mycosis fungoides.

OBJECTIVES:

Primary Objective:

To compare the dermoscopic features of patch and plaque stages of mycosis fungoides with that of plaque psoriasis and discoid eczema.

Secondary Objectives:

a) To describe the dermoscopic features of all stages of mycosis fungoides.

b) To assess the quality of life of patients with mycosis fungoides.

REVIEW OF LITERATURE

1. BACKGROUND

Mycosis fungoides (MF) is the most common cutaneous T-cell lymphoma, accounting for approximately 40% of all cutaneous lymphomas and 54%–65% of CTCLs (5,6). The overall incidence of CTCL is 10.2 per million persons. More than half of these cases are mycosis fungoides, with an incidence of 5.6 per million persons. The 2018 update of World Health Organization–European Organization for Research and Treatment of Cancer (WHO-EORTC) classification for primary cutaneous lymphomas shows the various entities of cutaneous T-cell and cutaneous B-cell lymphomas. The classification of cutaneous T-cell lymphomas is enlisted below (7).

A. Cutaneous T-cell lymphomas

1. Mycosis fungoides

Mycosis fungoides variants:

a) Folliculotropic mycosis fungoides, *b)* Pagetoid reticulosis, *c)* Granulomatous slack skin

2. Sezary syndrome (SS)

3. Adult T-cell leukemia/ lymphoma (ATL)

4. Primary cutaneous CD 30+ lymphoproliferative diseases

a) Primary cutaneous anaplastic large cell lymphoma (C-ALCL)

b) Lymphomatoid papulosis

5. Subcutaneous panniculitis like T-cell lymphoma

6. Extranodal NK/T-cell lymphoma, nasal type

7. Chronic active EBV infection

8. Primary cutaneous peripheral T-cell lymphoma, rare subtypes

a) Primary cutaneous γ/δ T-cell lymphoma, *b)* $CD8^+$ aggressive epidermotropic cutaneous T cell lymphoma (AECTCL) (provisional), *c)* Primary cutaneous $CD4^+$ small/medium T-cell lymphoproliferative disorder (provisional), *d)* Primary cutaneous acral $CD8^+$ T-cell lymphoma (provisional)

9. Primary cutaneous peripheral T-cell lymphoma, NOS

Mycosis fungoides shows a male preponderance with a male: female ratio of 2:1 and incidence rate ratio (IRR) 1.6. It mostly develops after the fourth to fifth decade of life while 1.8-7% of cases that develop at an early age show a characteristic female preponderance. The incidence increases with age, with the highest incidence at more than 70 years of age. Blacks have a higher incidence rate than whites (IRR 1.57). Black patients are diagnosed at an earlier age with a median age of diagnosis of 53 years compared with 63 years for whites with worse survival than white patients regardless of age and stage of presentation (1,6,8).

In the retrospective cross-sectional study by Amorim et al. from Brazil on clinical and epidemiological profile of patients with early stage mycosis fungoides, there was male predominance with 55/102 patients (53.92%) being males and 47/102 female patients

(46.08%) with a male: female ratio of 1.2:1. The mean age of presentation was 55.16 ± 15.97 years, the minimum age being 10 years and maximum being 83 years (6). Similarly, in the retrospective study by Desai et al, the male: female was found to be 1.1:1. The mean age at diagnosis was 53.7 ± 16.5 years with a minimum age of 8 years and maximum age of 91 years (9).

In the study by Bilgic et al. from Turkey, the median age of presentation of mycosis fungoides patients was 46.5 years (19 years-68 years). The median duration of disease was found to be 7.5 months ranging from 1 month to 7 years. The male: female ratio was found to be 2:3 with 12/20 females (60%) and 8/12 males (40%) (10). Lallas et al. found that the mean age of mycosis fungoides patients was 57.2 years with male: female ratio of 2.1:1(11). In the study by Xu et al, the mean age was 35.6 years and male: female ratio was 1.2:1(12) while in Ozturk et al, the mean age was 62 ± 12.4 years with male: female ratio of 0.7:1 (13) and Ghahramani et al. had a mean age of 61 years (2).

Till date, there is little literature available on the epidemiology of cutaneous lymphomas in India since the majority of cases are case reports. In a 10-year retrospective study by George R et al., thirty-three patients were included in the study with 31 patients with NHL and 2 patients with Hodgkin's disease. Among the patients with NHL group, there were 20 patients with CTCL and mycosis fungoides was found to be the most common among CTCLs (55.5%) (14).

In a large retrospective study conducted by Doshi BR et al., it was found that the frequency of occurrence of cutaneous lymphomas was 0.7 per 100 biopsy specimens. The study constituted 90 males (63.82%) and 51 females (36.17%). The male to female ratio was 1.76:1. There were 94.32% patients with T-cell lymphoma of which mycosis

fungoides constituted 73.04% of cases which was the most common cutaneous lymphoma. The maximum number of mycosis fungoides patients belonged to the second and third decade of life. The male: female ratio among the mycosis fungoides cases was 3:2 (15). In the 6-year retrospective study by Khader et al. from Kozhikode, Kerala, 35 cases of primary cutaneous lymphomas (PCL) were studied of which 33 cases (94.3%) were T-cell, and 2 cases (5.7%) were B-cell lymphomas. The average age reported was 52.66 years, and the male to female ratio was found to be 2.5:1. Mycosis fungoides (57.1%) was found to be the most common T-cell lymphoma followed by ATL (17.1%) (16).

In a descriptive study from the regional cancer centre in south India by Amirtham et al., 37 patients with cutaneous lymphoma were studied. Primary cutaneous lymphoma accounted for 28 cases (75.6%) and secondary involvement was seen in 9 cases (24.4%). The most common type among PCL was cutaneous T-cell lymphomas, accounting for 50% cases. Mycosis fungoides was the most common type among the cutaneous T-cell lymphomas, accounting for 6 cases (42.9%). The male: female ratio in the study was found to be 1.8:1 with 24 (64.9%) males and 13 (35.1%) females. The mean age reported was 41 years (17).

2.PATHOPHYSIOLOGY

Although the cause of mycosis fungoides is unknown, the leading hypothesis is the chronic antigen stimulation theory first described in 1974 by Tan and colleagues. Chronic antigen or superantigen stimulation is thought to lead to clonal expansion of T-cell and malignant transformation (1).

2.1 Malignant T-cell origin:

Mycosis fungoides originate from skin tropic memory CD4+ T-cell similar to Sezary syndrome (CD8+ and CD4– CD8- subtypes may also be seen). However, demonstration of different T-cell surface phenotypes and molecular profiles shows that malignant cells originate from distinct memory T-cell subsets such as the skin resident memory T-cells (T_{RM}) in mycosis fungoides. Sezary syndrome cells originate from central memory T (T_{CM}) cells (CCR7+, CD27+, and L-selectin+) (1,18,19).

T_{RM} cells are skin resident stationary polarized effector T-cells responsible for producing high amounts of inflammatory cytokines which results in a clinical presentation limited to the skin manifesting as patches, plaques or tumors which remain stable for years. A small set of patients can present with a progressive form of the disease with involvement of blood, lymph nodes and viscera. In comparison with T_{RM}, T_{CM} in Sezary syndrome tend to be more proliferative with active recirculation in blood, lymph nodes and skin(18).

Campbell et al showed that mycosis fungoides malignant T-cells are CCR4+/CLA+ and L-selectin-/CCR7- (T_{RM}), while Sezary syndrome malignant T-cell are CCR4+/L-selectin+/CCR7+ (T_{CM}). The molecular profile of these T-cell types correlates with the clinical profile of their malignant counterpart. Skin T_{RM} are non-migratory populations, and patients with mycosis fungoides clinically have fixed skin lesions with discrete borders. In contrast, T_{CM} recirculate between skin, blood and lymph nodes (19). Patients with migratory memory T-cells (T_{MM}) phenotype presents with ill-defined but discrete skin lesions.

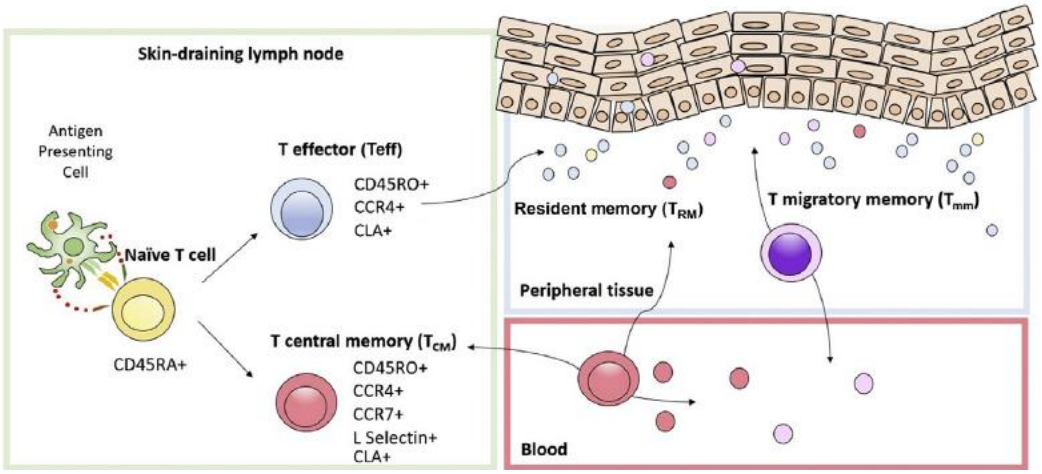


Figure 1: Skin tropic T-cell subtypes (1)

Table 1: Distinct T-cell origins of Mycosis fungoides and Sezary syndrome

Diagnosis	T cell origin	Surface markers
1. Mycosis fungoides	Resident memory (T_{RM})	CCR4+ CLA+ CCR7- L-selectin -
2. Mycosis fungoides/ Sezary syndrome (MF/SS)	Migratory memory (T_{MM})	CCR4+ CLA+ CCR7+ L-selectin +/-
3. Sezary syndrome	Central memory (T_{CM})	CCR4+ CCR7+ L-selectin +

2.2 Genomic alterations:

Mycosis fungoides/ Sezary syndrome (MF/SS) have complex and varied genomic abnormalities. Striking findings include the role of various chromosomal

abnormalities. The somatic copy number variations (SCNVs) are favoured over single nucleotide variants (SNVs) with 92% of mutations arising from SCNVs. The chromosomal aberrations often occur on chromosomes 8, 10, and 17 (1).

The various affected pathways in MF/SS include those involved in T-cell activation, function, migration, and differentiation; cytokine signalling; modification of chromatin; cell cycle, survival and proliferation along with DNA damage response(1).

2.3 Immunopathogenesis:

Immunosuppression is directly proportionate to the malignant T-cell burden and driven by abnormalities in the JAK/STAT signalling pathway. The tumor microenvironment changes from a T-helper 1(Th1) to a T-helper 2 (Th2) phenotype with advancing stages. These changes are reversible with depletion of malignant T-cells (1).

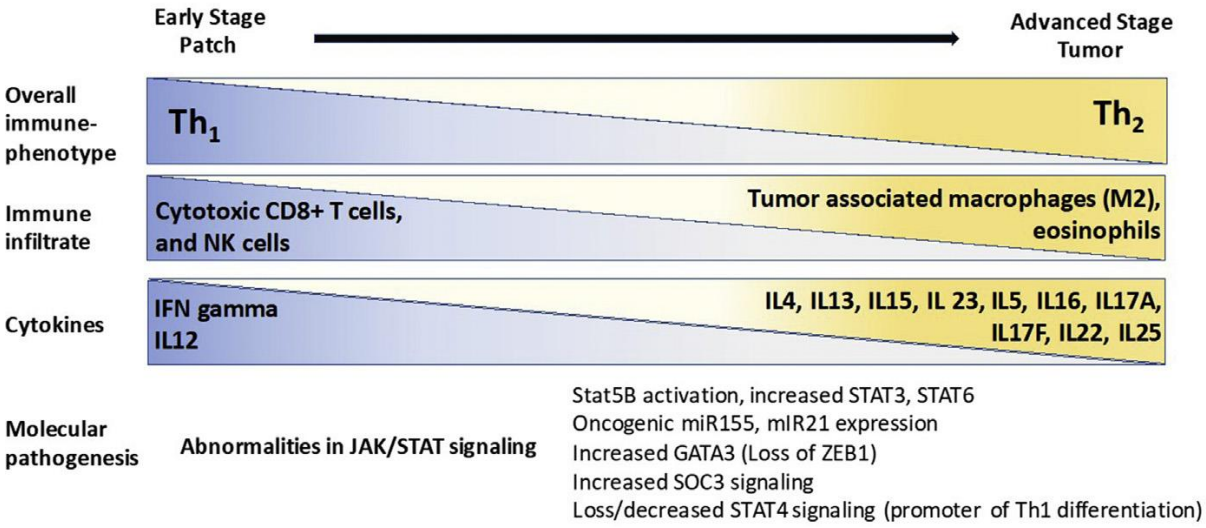


Figure 2: Immunopathogenesis of MF/SS (1)

3. CLINICAL FEATURES

3.1 MYCOSIS FUNGOIDES:

Mycosis fungoides is characterized by long- standing, scaly, patches and plaques preferentially involving the buttocks and body areas infrequently exposed to sunlight (‘‘bathing trunk’’) and slow evolution over years from patches to plaques (early-stage) and in some patients to tumors or erythroderma which is diffuse erythema and scaling covering more than 90% of body surface area seen in advanced stages (1,20).

The percentage of patients progressing from limited plaques and patches to extensive plaques, tumours or even erythroderma is about 34%. Mycosis fungoides is characterized by asymptomatic subtle, fine, scaly and mildly atrophic (wrinkled) erythematous patches. They may be associated with some pruritus. Plaques are more polymorphic, persistent, erythematous with the same distribution. Some individual plaques may increase in size and become large whereas some show regression, giving rise to rare arcuate lesions which shows significant variation in degree of scaling, border definition and colour. The psoriasiform scaling can be a striking feature in mycosis fungoides. The overall thickness of plaques have some prognostic significance according to recent evidence (1,6).

The various subtypes of mycosis fungoides by the WHO-EORTC with varied clinical and histopathological findings include (1):

a) Folliculotropic mycosis fungoides (FMF), *b)* Pagetoid reticulosis and

c) Granulomatous slack skin.

The various clinicopathological variants of mycosis fungoides includes (1):

a) Bullous, *b)* Hypopigmented, *c)* Ichthyosiform, *d)* Mycosis fungoides palmaris et plantaris (keratoderma-like), *e)* Pigmented purpuric dermatosis-like, *f)* Papular, *g)* Poikilodermatous, *h)* Psoriasiform, *i)* Pustular, *j)* Solitary/unilesional, *k)* Syringotropic and *l)* Verrucoid types.

The clinical mimickers of mycosis fungoides in patients of colour include the following (21):

a) Plaque psoriasis, *b)* Discoid eczema, *c)* Parapsoriasis, *d)* Pityriasis lichenoides chronica, *e)* Lichen planus pigmentosus inversus, *f)* Progressive macular hypomelanosis, *g)* Inflammatory vitiligo, *h)* Actinic reticuloid and *i)* Digitate dermatosis.

3.2 PLAQUE PSORIASIS:

Plaque psoriasis (PP) is characterized by sharply demarcated, erythematous, scaly patches or plaques. While plaque psoriasis can occur anywhere on the body, commonly affected areas include the scalp, trunk, gluteal fold, and extensor surfaces such as the elbows and knees (22). These clinical features may resemble the patch and plaque stage of early mycosis fungoides, which makes the diagnosis difficult.

3.3 DISCOID ECZEMA:

Discoid eczema presents with a round or oval shaped, crusted or scaly plaques with excoriations. Discoid eczema can be due to different aetiologies. Eczema is characterized by intensely pruritic, erythematous papules and vesicles with excoriations and serous exudates which later presents with lichenified papules and plaques with

excoriations (23). The above features may closely mimic the patch and plaque stage of early mycosis fungoides. Hence, the chances of misdiagnosis rises.

4. DIAGNOSTIC METHODS

4.1 MYCOSIS FUNGOIDES:

The diagnosis of MF/SS is challenging and depends on clinical features, pathologic findings and molecular studies. It can resemble various benign inflammatory dermatoses and early diseases may lack typical histopathological findings even after serial biopsies. T-cell receptor (TCR) rearrangement studies may show false negativity in early diseases (24–27). The diagnostic algorithm for diagnosis of mycosis fungoides includes clinical features, histopathology, immunopathology and T-cell clonality molecular studies (1,28).

The diagnostic criteria for mycosis fungoides includes (29)**:**

1. Clinical criteria includes basic and additional criteria:

   a) Basic criteria-Persistent and/or progressive patches/thin plaques

   b) Additional criteria - i) Non-sun exposed location, ii) Size/shape variation iii)Poikiloderma

   (2 points for basic criteria and two additional criteria & 1 point for basic criteria and one additional criteria)

2. Histopathological criteria includes basic and additional criteria:

   a) Basic criteria- Epidermotropism without spongiosis

   b) Additional criteria- i) Lymphoid atypia, ii) Pautrier's microabscess iii)Superficial dermal perivascular or lichenoid infiltrate

   (2 points for basic criteria and two additional criteria & 1 point for basic

criteria and one additional criteria)

3. Molecular biological criteria includes monoclonal TCR gene rearrangement
   (1 point for clonality)
4. Immunopathologic criteria
   Epidermal discordance of CD2, CD3, CD5, CD7 or CD8
   (1 point for the criteria)

A total of 4 points is required for the diagnosis of mycosis fungoides based on any combination of points from the clinical, histopathologic, molecular biological and immunopathologic criteria.

4.2 PLAQUE PSORIASIS:

The gold or reference standard is conventionally accepted to be a clinical diagnosis based on the pattern recognition of clinical features, made by a qualified dermatologist. There are no valid clinical examination-based diagnostic criteria for psoriasis at present to support diagnosis of psoriasis and help in standardisation of disease definition in research. The diagnosis may be supported, when required, by a histopathology of the lesion (30).

4.3 DISCOID ECZEMA:

There is no standard criteria for diagnosing discoid eczema except for atopic dermatitis. Discoid eczema is usually diagnosed by the typical clinical appearance of crusted scaly plaques after ruling out superficial fungal infections and bacterial infections by skin scrapings, patch tests and swabs for culture. The diagnosis may be supported by a skin biopsy (31).

5. DERMOSCOPY

Dermoscopy is a non-invasive technique that aids in diagnosis of both inflammatory diseases as well as pigmented and non-pigmented neoplastic skin conditions by permitting the visualization of features that are not visible to the naked eye (2–4). By assessment of characteristic vascular structures, colours and other patterns, dermoscopy can improve diagnostic accuracy for several dermatologic conditions (3,4).

5.1 MYCOSIS FUNGOIDES:

There are very few studies in literature that have described the various dermoscopic findings in mycosis fungoides. The specific dermoscopic features reported in literature that suggest a diagnosis of mycosis fungoides includes the following (10–12):

a) Regular-appearing white structureless areas, *b)* Fine short linear vessels, *c)* Dotted vessels, *d)* Dotted + linear vessels forming a spermatozoa-like vascular structures,

e) Y- shaped arborizing vessels with regular, clustered and patchy vessel arrangement, *f)* White and yellow scales with patchy, peripheral and diffuse scale distribution,

g) Orange-yellow patchy areas, *h)* Light red and dull red background, *i)* Yellow ulceration, *j)* Perifollicular accentuation and comedo-like openings in follicular mycosis fungoides (FMF).

Other dermoscopic findings seen in mycosis fungoides patients include ring shaped vessels, hairpin like vessels, comma shaped vessels, red globules, glomeruli like vessels and purpuric dots.

Table 2: The various dermoscopic findings reported in literature on mycosis fungoides and corresponding studies

Reported dermoscopic findings in MF	**STUDIES CITED**				
	Ghahramani et al (2)	**Lallas et al** (11)	**Xu et al** (12)	**Ozturk et al** (13)	**Bilgic et al** (10)
A. VASCULAR STRUCTURES					
1. Dotted vessels	16% (patch) 100%(plaque)	56.3%	67.7%	29.4%	35%
2. Dotted + linear	-	-	-	-	65%
3. Fine short linear vessels	83% (patch)	93.8%	90.3%	82.3%	-
4. Red globules*	-	-	-	-	-
5. Glomerular * vessels	-	-	-	-	-
6. Spermatozoa -like structures	66%	50%	74.2%	29.4%	-
7. Rings/hairpin-like vessels	-	-	9.7%	-	-
8.Y-shaped arborising vessels	-	-	-	29.4%	-
9. Vessel arrangement					
a) Patchy	-	-	25.8%	-	80%
b) Regular	-	-	67.7%	-	15%
c) Cluster	-	-	6.5%	-	5%
B. SCALE CHARACETRISTICS					
10. Scale colour					
a) White scales	50% (patch) 100%(plaque)	18.8%	3.2%	70.5%	80%
b) Yellow-white scales	-	-	-	-	5%
11. Scale distribution					
a) Patchy	-	-	-	-	36.6%
b) Peripheral	-	-	-	-	3.3%
c) Diffuse	-	-	-	-	16.6%

12. Yellow crusts*	-	-	-	-	-
C. BACKGROUND COLOURS					
13. Background colour					
a) Light red	16% (patch)	-	9.7%	-	45%
b) Dull red	50% (patch) 100%(plaque)	-	83.9%	-	10%
c) Brown*	-	-	-	-	-
d) Yellow	-	-	-	-	10%
14. Structureless patches	100%	-	-	35.2%	-
15. Orange-yellow patchy areas	100%(plaque)	90.6%	90.3%	88.2%	35%
D. OTHER DERMOSCOPIC FINDINGS					
16.Perifollicular accentuation	100% (FMF)	-	-	-	-
17.Comedo-like openings	60% (FMF)	-	-	-	-
18. Crystalline structures	33% (patch stage MF)	-	-	-	-

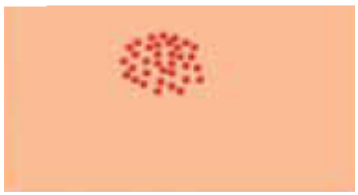
***Red globules, glomerular vessels, yellow crusts and brown background colour were not seen in mycosis fungoides lesions in the above studies.**

Vascular structures in mycosis fungoides:

Arborising vessels

Hairpin/loop vessels

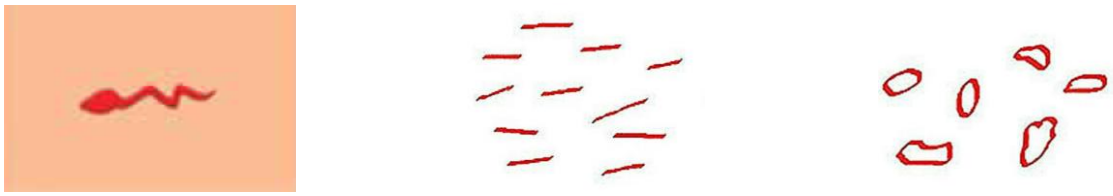
Comma shaped vessels



Dotted vessels

Glomerular vessels

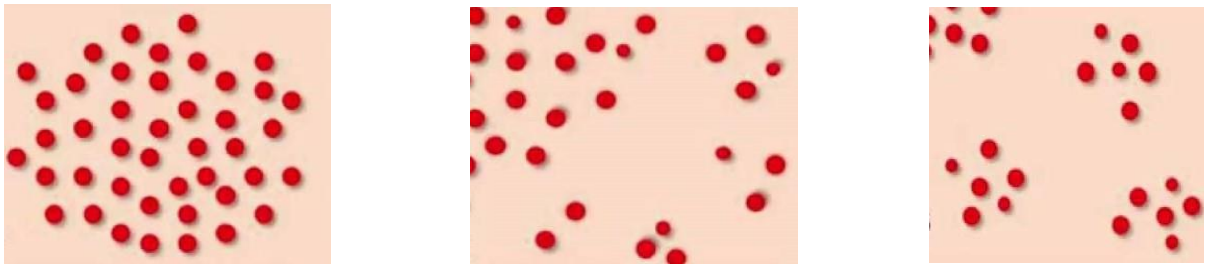
Red globules



Spermatozoa-like vessels Linear vessels Ring like vessels

Figure 3: Vascular structures on dermoscopy in mycosis fungoides; Adapted from Ayhan E et al (32)

Vascular arrangement in mycosis fungoides:



Regular Patchy Clustered

Figure 4: Vascular arrangement on dermoscopy in mycosis fungoides; Adapted from Ayhan E et al (32)

In a study by Lallas et al. where dermoscopic features in 32 patients from European descent with patch-stage mycosis fungoides were analysed and compared with the dermoscopic features of 35 patients with chronic dermatitis, they reported that the most prevalent features in patch stage early mycosis fungoides were fine short linear vessels in 30/32 cases (93.8%) and orange-yellowish patchy areas in 29/32 cases (90.6%). Additionally, they described a characteristic subtype of linear vessels, i.e., spermatozoa-like structures (specific vascular structure with a dotted and a short curved linear vessel resembling a spermatozoa) seen in 16/32 (50%) mycosis fungoides cases. The fine short, linear vessels and orange-yellowish patchy areas were found to be of high sensitivity (93.7% and 90.6%, respectively) and specificity (97.1% and 99.7%,

respectively) for the accurate differential diagnosis of mycosis fungoides. Spermatozoa-like structure was a highly specific marker of mycosis fungoides (99.7%), but with a low sensitivity (50%). The other findings included dotted vessels in 18/32 cases (56.3%) and white scales in 6/32 cases (18.8%) (11).

In a prospective study, Ghahramani et al. recruited 15 patients with primary cutaneous lymphoma, including 7 patients with mycosis fungoides and the characteristic dermoscopic features of patch and plaque stages of mycosis fungoides were interconnected white structureless patches (100%) which encircle small fine linear vessels (71.4%) producing an overall trabeculated to fenestrated pattern along with spermatozoa-like structures (57.1%) and white scales (57.1%) (2).

In a retrospective study done by Xu et al. on 101 patients, 31 patients with mycosis fungoides, 36 patients with chronic dermatitis and 34 patients with plaque psoriasis were examined dermoscopically, histopathologically and immunohistochemically. This study confirmed the repetitive dermoscopic features of mycosis fungoides in Chinese patients. The most common dermoscopic structures observed were linear vessels and orange-yellowish patchy areas (28/31 cases in both accounting for 90.3%).

The frequency of spermatozoa-like structures constituted 23/31 cases (74.2%) which was higher than the previous studies by Lallas et al. and Ghahramani et al. (2,11). The authors also assessed the vessel distribution and arrangement in mycosis fungoides, which was found to be regular arrangement in most cases (21/31 cases; 67.7%)(12).

A study conducted by Ozturk et al., where dermoscopic features of patients with stage IIA mycosis fungoides were compared with that of plaque psoriasis, the most common features were orange-yellow patches in 15/17 cases (88.2%) along with short, fine and linear vessels in 14/17 cases (82.3%), and geometric white scales in 12/17 cases (70.5%). Unlike the previous studies, it was observed that there is a relatively high prevalence of scales in mycosis fungoides patients. The prevalence of these scales were geometric white scale (12/17 cases), perifollicular white scale (8/17 cases), collarette white scale (6/17 cases) and diffuse lamellar white scale (1/17 cases) (13).

In the descriptive study by Bilgic et al. to evaluate the role of dermoscopy in the differential diagnosis of various common inflammatory disorders, they included mycosis fungoides (n = 20), plaque psoriasis (n = 50), pityriasis rosea (n = 30), lichen planus (n = 30) and nummular dermatitis (n = 20) patients. The most common dermoscopic findings observed in mycosis fungoides patients were white scales in 16/20 cases (80.0%) along with dotted and linear vessels in 13/20 cases (65.0%) in a regular (15%) or patchy distribution (80%). The background was light red in 45% cases and orange-yellow in 35% cases(10).

In a prospective study by Bosseila et al. in Egyptian population, where 25 mycosis fungoides patients were recruited, of which 16 (64%) were classic patch and plaque stage mycosis fungoides, 7 (28%) were hypopigmented and 2 (8%) poikilodermatous mycosis fungoides. It was observed that 16 patients (64%) had dotted vessels, 12 patients (48%) had linear vessels, 4 patients (16%) each showed comma shaped vessels and yellowish areas (33).

The dermoscopic features seen in other relevant variants of mycosis fungoides include:

a) Poikilodermic variant of mycosis fungoides (34):

- Reticular brown areas on a pinkish-white or white background with
- Dotted and hairpin vessels or dotted and glomerular vessels.

b) Erythrodermic mycosis fungoides:

The study by Errichetti et al. involving a patient with erythrodermic mycosis fungoides dermoscopically revealed the presence of dotted and serpiginous vessels (spermatozoon-like shape) over whitish-pinkish background along with white scale (34,35).

c) Hypopigmented mycosis fungoides:

In the retrospective analysis of dermoscopic features of mycosis fungoides in patients with skin of colour, Nakamura et al. observed patchy amorphous, white pink areas with reduced natural pigment network (36).

d) Folliculotropic mycosis fungoides (FMF):

Ghahramani et al. had five patients with FMF in their study. The most common findings found in the study were perifollicular accentuation (5/5 cases), white scales (5/5 cases), comedo-like openings, structureless patches (both present in 3/5 cases) and crystalline structures (2/5 cases) (2). A study by Jurakic Toncic et al. found that perifollicular accentuation (white halo around hair follicles) was an early feature of folliculotropism (37). Caccavale et al. also reported perifollicular erythema surrounding comedo-like lesions, white structureless areas replacing lost hair follicles along with fine short linear, glomerular and dotted vessels as the dermoscopic features seen in FMF (38).

5.2 PLAQUE PSORIASIS:

The dermoscopic features seen in plaque psoriasis include (39,40):

a) Regularly distributed red dots, *b)* Red globular rings, *c)* Light red background colour and *d)* White superficial scales.

In the study by Errichetti et al., it was shown that the presence of uniform dotted vessels on a red background along with diffuse white scales have a good diagnostic accuracy for psoriasis, with specificity of 88.0% and sensitivity of 84.9% (39).

In a study conducted by Joanna Golinska et al., the most common features seen in a patient with plaque psoriasis included red dots and globules distributed in a diffuse pattern seen in 170/306 cases (55.6%). These red dots and globules represented either bushy vessels or twisted loops on higher magnification. The other patterns of vessel distribution noted were patchy and polygonal seen in 117/306 cases (38.2%) and 19/306 cases (6.2%) respectively. The scales were observed in 277/306 cases (90.5%). White scales were seen in 200/306 cases (65.4%) and yellow scales in 77/306 cases (25.2%)(41).

Lallas et al., in their study observed that dotted vessels were commonly observed in a regular distribution seen in 73/83 cases (88%) and white scales were seen in 58/83 cases (70%) (40). In the study by Ghahramani et al., they observed dotted vessels in 100% cases, white scales in 70% (50/83 cases), light red background seen in 41% (34/83 cases) and dull red background in 58% (48/83 cases). Yellow scales were not seen in any patients in the study(2).

5.3 DISCOID ECZEMA:

The characteristic dermoscopic features of eczema include(39,40):

a) Yellow scales, *b)* Sero-crusts, *c)* Dotted vessels distributed in clusters or randomly (non-specific arrangement), *d)* Rail-like appearance of white scales and *e)* Brownish-salmon coloured dots/red globules.

Errichetti et al. described the hallmark features of eczema as dotted vessels which were arranged in clusters or randomly (unspecific arrangement), yellow scales and sero-crusts (yellow clod sign) along with haemorrhages which could be a result of intense itching. Chronic cases of eczema showed uniform dotted vessels surrounded by a white halo which was a sign of lichenification. Glomerular vessels or globular vessels were seen with stasis dermatitis. Brownish-salmon-coloured globules/dots denoting spongiotic vesicles were seen in chronic hand eczema. “Rail-like” appearance (white scales having a double free edge) were seen with asteatotic eczema (39).

In the study by Lallas et al., in eczematous dermatitis the vessels were more commonly arranged in a patchy distribution (24⁄41 cases; 59%) along with yellow scales (25⁄41 cases; 61%). In the study by Ghahramani et al., they observed dotted vessels in 86% cases (30/35 cases), fine short linear vessels in 3% cases (1/35 cases). White scales were seen in 66% (23/35 cases) and yellow scales in 57% cases (20/35 cases). The light red background was seen in 15% (6/35 cases) and dull red background in 66% (27/35 cases)(40). In Vazquez Lopez et al., the vascular pattern seen in all the patients with discoid eczema were red dots and red globules (42).

5.4 COMPARISON OF DERMOSCOPIC FEATURES OF MYCOSIS FUNGOIDES WITH PLAQUE PSORIASIS AND DISCOID ECZEMA

Mycosis fungoides manifesting at an early stage as scaly infiltrated erythematous patches or plaques remains a diagnostic challenge as its clinical presentation may closely mimic inflammatory skin diseases such as discoid eczema and plaque psoriasis (11). Clinical misinterpretation of early mycosis fungoides as plaque psoriasis or discoid eczema often delays biopsy and histological examination. There is clinical and histologic overlap of mycosis fungoides with other benign inflammatory dermatosis, including psoriasis and eczema which delays the diagnosis. Optimal management of mycosis fungoides depends on accurate and precise diagnosis (12).

Dermoscopy is a technique that helps in diagnosis of various skin lesions by permitting the visualization of features by assessing characteristic vascular structures and patterns. Dermoscopy is considered to be an intermediate method between clinical diagnosis and histopathological diagnosis of the lesion, since the latter remains the gold standard for diagnosis (43). It has recently been shown that early patch stage mycosis fungoides lesions display a characteristic dermoscopic pattern of fine short linear vessels, orange-yellow patchy areas, and spermatozoa-like vascular structures, allowing the disease to be more easily differentiated from chronic dermatitis and psoriasis.

Lallas et al., have studied the dermoscopic pattern of early stage mycosis fungoides (n=32) and compared it with the dermoscopic features observed in chronic dermatitis (n=35). The dermoscopic examination was based on (i) dotted vessels; (ii) fine short linear vessels; (iii) spermatozoa-like structures; (iv) orange-yellowish patchy areas; (v) white scales; and (vi) yellow scales. The results showed that mycosis fungoides lesions

exhibited a characteristic dermoscopic pattern consisting of fine short linear vessels, orange-yellowish patchy areas and characteristic spermatozoa-like vascular structures which was found to be highly specific for the diagnosis of mycosis fungoides while chronic dermatitis mainly consisted of markedly increased dotted vessels (85.7%) along with white scales (65.7%) and yellow scales (57.1%)(11).

The dermoscopic findings, histologic features, clinical characteristics, and demographic data of mycosis fungoides were analysed and compared with that of psoriasis and eczematous dermatitis by Ghahramani et al. and the results showed that characteristic dermoscopic findings like interconnected white structureless patches, fine short linear vessels and spermatozoa-like structures seen in patch stage of mycosis fungoides were not found in psoriasis and eczematous dermatitis. They showed more dotted vessels, white scales and yellow scales (2).

A study conducted by Xu et al. showed that the dermoscopic features of early mycosis fungoides were linear vessels (sensitivity 90.3%, specificity 92.9%), regular arrangement of blood vessels, orange-yellow patchy areas (sensitivity 90.3%, specificity 91.4%) and spermatozoa-like structures (sensitivity 74.2%, specificity 100%). These dermoscopic findings helped in differentiating mycosis fungoides from chronic dermatitis and plaque psoriasis which present with similar clinical features. Chronic dermatitis presented with dotted vessels in most cases (35/36 cases; 97.2%) with a patchy distribution (24/36 cases; 51.1%) over a dull red background (24/36; 66.7%) along with yellow scales (23/36 cases; 63.9%) while plaque psoriasis most commonly presented with dotted vessels in a regular arrangement (33/34 cases; 97.1%)

over a light red background (24/44 cases; 70.6%) along with white scales (24/34 cases; 79.6%) (12).

According to the study conducted by Ozturk et al. where the dermoscopic features in patients with stage IIA (with no detailed information about the clinical morphology of the lesions) mycosis fungoides (n = 17) were compared with patients with psoriasis (n = 17). The most common features observed in mycosis fungoides were the orange-yellow patches in 15/17 cases (88.2%), short, fine and linear vessels in 14/17 cases (82.3%), and geometric white scales in 12/17 cases (70.5%) while dotted and red globular vessels were seen only in 1/17 cases (5.8%). The most prevalent features observed in patients with psoriasis were dotted vessels in 16/17 cases (94.1%), diffuse lamellar white scales in 15/17 cases (88.2%) and dotted/ red globular vessels in 12/17 cases (70.5%). Among the scales observed, the geometric white scales were more common in patients with mycosis fungoides while diffuse lamellar white scales were common in patients with psoriasis (13).

In a recent article on 'Dermoscopy in differential diagnosis of inflammatory dermatoses and mycosis fungoides', Bilgic et al. evaluated the role of dermoscopy in the differential diagnosis of various common inflammatory disorders including mycosis fungoides (n = 20), plaque psoriasis (n = 50), pityriasis rosea (n = 30), lichen planus (n = 30), and nummular dermatitis (n = 20). The findings from the dermoscopic examination were recorded based on a) Background colour: Light red, dull red, yellow, yellow-orange, b) Vessel type: Dotted and dotted + linear vessels, spermatozoa-like vessels, c) Vessel arrangement: Regular, clustered, patchy and ring-like, d) Scale colour: White, yellow, and yellow-white, e) Scale distribution: Patchy, peripheral, diffuse, and central, f)

Additional findings: Spermatozoa-like vessels and yellow clods. The results showed dotted +linear vessels (65%) in a patchy distribution pattern (80%) with white (80%) and yellow-white scales (5%) in mycosis fungoides, regularly arranged (76%) dotted vessels (96%) with white scales (76%) in plaque psoriasis and dotted vessels (100%) in patchy distribution pattern (70%) with yellow-white scales (50%) in nummular dermatitis.

6. HISTOPATHOLOGY

The anatomo-clinical correlation of dermoscopic with histopathologic findings is thus important in our study as the gold standard of diagnosis is histopathology.

6.1 MYCOSIS FUNGOIDES:

The histopathology of mycosis fungoides includes the following (29):

1. Atypical lymphoid cells with hyperchromatic, irregular or cerebriform nuclear contour, with size slightly larger than normal lymphocytes. These cells are called mycosis cells, Sezary cells or Lutzner cells.

2. Atypical haloed lymphocytes present individually within the epidermis

3. Single lymphoid cells arranged linearly with pagetoid spread along the basal layer of the epidermis (buckshot distribution with pericellular halos)

4. Increased number of lymphocytes (not necessarily atypical) relative to other dermatitis, present individually or in collections in an epidermis devoid of spongiotic microvesiculation (termed as ‘‘Disproportionate epidermotropism’’).

5. Vacuolar interface dermatitis

6. Mixed inflammatory cell infiltrates consisting of lymphocytes, histiocytes and eosinophils surrounding vessels in the upper dermis.

7. Fibrosis in the papillary dermis

There are no definite histopathologic correlates for reported dermoscopic features of mycosis fungoides. The proposed histopathological correlates of the dermoscopic features are given in Table 3.

Table 3: The dermoscopic features and their proposed histopathologic correlate in mycosis fungoides (2,13,39)

DERMOSCOPIC FEATURES	HISTOPATHOLOGIC FEATURES
a) Regular white structureless areas	Epidermotropism, atypical pleomorphic cells and lichenoid infiltrate
b) Fine short vessels	Dilated vessels
c) Dotted vessels	Dilated tortuous irregular vessels which spare the centre of lesions
d) Spermatozoa like structures	Capillaries along the dermal papillae extending horizontally to subpapillary dermis
e) White and yellow scales	Hyperkeratosis, parakeratosis and acanthosis

6.2 PLAQUE PSORIASIS:

The characteristic histopathological features for plaque psoriasis includes psoriasiform epidermal hyperplasia, dilated capillaries in the papillary dermis, suprapapillary thinning, Munro's microabscesses, spongiform pustules of Kogoj and a perivascular infiltrate of lymphocytes, histiocytes and few neutrophils (12,40).

Table 4: The dermoscopic features and their histopathologic correlate in plaque psoriasis (39)

DERMOSCOPIC FEATURES	HISTOPATHOLOGIC FEATURES
a) Uniformly distributed red dotted vessels	Dilated vertically arranged capillaries within the regularly elongated dermal papillae
b) Diffuse white scales	Parakeratosis
c) Red globules	Dilated and tortuous capillary loops
d) Glomeruli like vessels	Irregular tortuous capillaries
e) Light or dull red background	Dilated capillaries

6.3 DISCOID ECZEMA:

The histopathological criteria for eczema includes presence of acanthosis and spongiosis of the epidermis with a parakeratotic crust of serum and neutrophils and a slight infiltration of lymphocytes, histiocytes and eosinophils surrounding vessels in the upper dermis (12,40).

Table 5: The dermoscopic features and their histopathologic correlate in eczema (39)**:**

DERMOSCOPIC FEATURES	HISTOPATHOLOGIC FEATURES
a) Dotted vessels distributed in clusters or randomly (non-specific arrangement)	Dilated capillaries in irregularly elongated dermal papillae
b) Yellow scales and serocrusts	Hyperkeratosis and spongiosis/ exocytosis

c) Uniform dotted vessels surrounded by a white halo	Lichenoid infiltrates

7. IMMUNOHISTOCHEMISTRY IN MYCOSIS FUNGOIDES

The mycosis fungoides tumor cells are usually CD3+ and CD4 + and CD8 -. CD4/CD8 ratio greater than 4–6 suggest diagnosis of mycosis fungoides as they denote proliferation of CD4+ neoplastic cells. However, CD4 positivity can also be seen in histiocytes and Langerhans cells. Lesional skin showing loss of pan T-cell markers like CD2, CD5, and CD7, in CD4+ T cells also supports the diagnosis of mycosis fungoides. In early mycosis fungoides, loss of CD2 and CD5 is rare. Expression of CD2 or CD5 by less than 50% of infiltrating T cells is specific but only about 10% sensitive. However, diminished expression is more frequent in early mycosis fungoides. Decreased CD7 expression of less than 10% infiltrating lymphocyte was found to be 93–100% specific and 41–80% sensitive for mycosis fungoides diagnosis (44). In hypopigmented mycosis fungoides, a predominant CD8+ epidermotropism was seen (45).

Polymerase chain reaction (PCR) or Southern blot analysis detection of T-cell receptor (TCR) monoclonality is seen in mycosis fungoides. However, PCR is found to be more sensitive than Southern blot analysis. Around 83% of early mycosis fungoides cases showed clonal TCR gene arrangement by PCR analysis (44).

8. STAGING OF MYCOIS FUNGOIDES

TNMB classification (1,46):

Skin

T1- Limited patches, papules and plaques covering <10% of the skin surface; may further stratify into T1a (patch only) versus T1b (plaque ± patch)

T2- Patches, papules and plaques covering ≥10% of the skin surface; may further stratify into T2a (patch only) versus T2b (plaque ± patch)

T3 One or more tumours (≥1 cm diameter)

T4 Confluence of erythema covering ≥80% body surface area

Node

N0 No clinically abnormal peripheral lymph nodes; biopsy not required

N1 Clinically abnormal peripheral lymph nodes; histopathology Dutch grade 1 or NCI LN0–2

N1a Clone negative, N1b Clone positive

N2 Clinically abnormal peripheral lymph nodes; histopathology Dutch grade 2 or NCI LN3

N2a Clone negative, N2b Clone positive

N3 Clinically abnormal peripheral lymph nodes; histopathology Dutch grades 3–4 or NCI LN4; clone positive or negative

NX Clinically abnormal peripheral lymph nodes; no histological conformation

Visceral

M0 No visceral organ involvement

M1 Visceral involvement (must have pathology confirmation and organ involved should be specified)

Blood

B0 Absence of significant blood involvement; ≤5% of peripheral blood lymphocytes are atypical (Sezary cells)

B0a Clone negative, B0b Clone positive (identical to skin T-cell clone)

B1 Low blood tumour burden; > 5% of peripheral blood lymphocytes are atypical

(Sezary cells) but does not meet the criteria of B2

B1a Clone negative, B1b Clone positive (identical to skin T-cell clone)

B2 High blood tumour burden; ≥1000/μL Sezary cells with positive clones

Table 6: Staging of Mycosis fungoides

Stage	**T (tumour)**	**N (node)**	**M (metastasis)**	**B (blood)**
IA	T1a/b	N0	M0	B0–1
IB	T2a/b	N0	M0	B0–1
IIA	T1–2	N1	M0	B0–1
IIB	T3	N0–2	M0	B0–1
IIIA	T4	N0–2	M0	B0
IIIB	T4	N0–2	M0	B1
IVA1	T1–4	N0-2	M0	B2

IVA2	T1–4	N3	M0	B0–2
IVB	T1–4	N0–3	M1	B0–2

9. SEVERITY SCORES IN PSORIASIS AND ECZEMA

9.1 PLAQUE PSORIASIS

The severity of plaque psoriasis was determined using the Psoriasis activity and severity index (PASI) score. The PASI is a clinician-rated measure of psoriasis severity in four locations: head, upper limbs, trunk, and lower limbs. For each location, a score is calculated based on psoriasis severity and surface area involvement. The severity score is comprised of three attributes (erythema [redness], induration [thickness], desquamation [scaling]) rated on a scale from 0 (none) to 4 (very severe) and summed for a severity score ranging from 0–12. The surface area score ranges from 0 (0%) to 6 (90–100%). Each of the four body location scores is calculated as the severity sum score multiplied by the surface area score (possible range = 0–72). Each location score is then multiplied by a specific correction score (head = 0.1, upper limbs = 0.2, trunk = 0.3, lower limbs = 0.4), with the adjusted scores summed to produce a total score ranging from 0–72 (47,48).The overall score divides the disease into mild, moderate and severe plaque psoriasis. PASI score sheet is given in Annexure 6.

9.2 DISCOID ECZEMA

The severity of discoid eczema was calculated using the Eczema area and severity index (EASI) score. An EASI score is a tool used to measure the extent (area) and severity of eczema. Severity score is recorded for each of the four regions of the body. The

severity score is the sum of the intensity scores for four signs. The four signs include redness (erythema, inflammation), thickness (induration, papulation, swelling-acute eczema), scratching (excoriation) and lichenification (lined skin, furrowing, prurigo nodules-chronic eczema). The average intensity of each sign in each body region is assessed as: none (0), mild (1), moderate (2) and severe (3). For each region, the intensity for each of four signs is recorded and the severity score is calculated. For each region, multiply the severity score by the area score and by a multiplier. The multiplier for each site being 0.1 for head, 0.2 for upper limbs, 0.3 for trunk and 0.4 for lower limbs. The total scores for each region are added to determine the final EASI score. The minimum EASI score is 0 and the maximum EASI score is 72 (49). EASI score sheet is given in Annexure 7.

10. DERMATOLOGICAL LIFE QUALITY INDEX (DLQI)

Mycosis fungoides can cause highly visible, pruritic and painful lesions that can be debilitating to patients, interfering with their ability to sleep, perform daily activities and social functioning. The significant psychosocial burden of mycosis fungoides is related not only to clinical symptoms, but also to stressors inherent in living with a potential haematologic malignancy (eg. prognosis, therapeutic toxicities and substantial financial strain). Given the severe symptom burden and chronic nature of mycosis fungoides, effective assessment of DLQI is essential to guiding patient-centred care in the population (50). A few studies have tried to assess the health related quality of life (HRQoL) and other quality of life (QoL) indices of patients with mycosis fungoides,

however studies which evaluate the dermatological quality of life in patients with mycosis fungoides are currently lacking in literature (51,52).

The DLQI is a questionnaire (Annexure 5) which was developed by Finlay and Khan. It has been described as the most established dermatological life quality instrument. It consists of 10 questions regarding the impact of a skin disease on the daily life activities and feelings of the patient. Each question is scored from 0 (not at all) to 3 (very much). A total of 30 points is the maximum score, where 0-1 is regarded as no effect, 2-5 small, 6-10 moderate, 11-20 very large and 21-30 as an extremely large effect on the patient's life(53).

In a prospective randomised clinical trial conducted by Graier et al., DLQI of early mycosis fungoides patients and the effect of PUVA therapy on them were studied. Among 24 patients who were enrolled, 7/24 patients (29%) had no impairment of quality of life (DLQI 0-1), 4/24 cases (17%) had strong impairment (DLQI >10), 7/24 cases (29%) had moderate impairment (DLQI 6-10) and 6/24 cases (25%) had slight impairment (DLQI 2-5) of quality of life by mycosis fungoides prior to treatment (54). In a recent article on 'Clinical severity measures and quality-of-life burden in patients with MF/SS: comparison of generic and dermatology-specific instruments' by C.M. Herbosa et al., they performed a comprehensive assessment of QoL in MF/SS using an extensive battery of validated two generic instruments such as Health Utilities Index Mark 3 (HUI3) and RAND 36-Item Short-Form Health Survey (SF- 36), as well as three dermatology-specific QoL instruments such as Skindex-29, visual analogue scale for itch (VAS itch) and 5-D pruritus scale. The results showed that patients with MF/SS scored significantly worse than controls on all QoL instruments used, with advanced

stage (IIB-IVB) disease having the worst QoL impairment. Early-stage (IA–IIA) and advanced-stage MF/SS patients had significantly reduced overall health status and worst skin-specific impairment than controls, with advanced-stage disease reporting the most severe skin-specific burden. Clinical severity measures had a weak correlation with generic and moderate correlation with dermatology-specific instruments (50).

In summary, there is very few literature available regarding dermoscopic features in mycosis fungoides and their comparison with its mimics like plaque psoriasis and discoid eczema. Hence, we decided to study their dermoscopic features and compare these in our population. As studies which evaluate the DLQI in patients with mycosis fungoides are lacking in literature, we decided to assess the dermatological quality of life in patients with mycosis fungoides in an Indian setting. We are hoping that the information we collect is going to help throw more light on these particular diseases and the patient's quality of life and thus help in early diagnosis and treatment of the disease.

MATERIALS AND METHODS

STUDY DESIGN

This is a hospital based, single centre, cross sectional observational study on the dermoscopic features of mycosis fungoides and their comparison with the dermoscopic features of plaque psoriasis and discoid eczema and dermatological quality of life in patients with mycosis fungoides.

STUDY SETTING

The study was conducted in the Department of Dermatology, Venereology and Leprosy Unit -2 at Christian Medical College, Vellore, a tertiary care hospital in Vellore, Tamil Nadu. The patients were recruited from the in-patient and out-patient departments of Dermatology at Christian Medical College, Vellore.

STUDY DURATION

This study was conducted between October 2020- September 2021 (12 months)

STUDY POPULATION

Patients with clinical features of mycosis fungoides, plaque psoriasis and eczema fulfilling the following criteria were included in the study.

Inclusion criteria for cases and controls:

1. Patients aged 18 years and above with biopsy proven mycosis fungoides and patients with clinical features of classical plaque psoriasis and discoid eczema
2. Patients willing to participate in study.

Exclusion criteria for cases and controls:

1. Atypical cases of psoriasis and eczema

2. Palmoplantar psoriasis, scalp psoriasis, flexural psoriasis, erythrodermic psoriasis and pustular psoriasis

3. Hand and foot eczema, allergic contact dermatitis, seborrheic dermatitis and erythroderma secondary to eczema

4. Cases where histopathology of mycosis fungoides is not clear

5. Not willing to participate in the study

SAMPLE SIZE

With reference to mycosis fungoides having a dotted vessel of 56.3% and dermatitis at 85.7% on dermoscopy with power at 80% and alpha error at 5% we need to study at least 36 mycosis fungoides lesions and 36 psoriasis and eczema lesions. Thus, 36 lesions of mycosis fungoides, 18 patients of plaque psoriasis and 18 patients of discoid eczema were included in the study. The formula for calculating sample size is given below

$H_o : P_1 = P_2;$ $\quad H_a : P_1 \neq P_2$

$$n = \frac{\left\{ Z_{1-\frac{\alpha}{2}} \sqrt{2\,\bar{P}\,(1-\bar{P})} + Z_{1-\beta} \sqrt{P_1\,(1-P_1) + P_2\,(1-P_2)} \right\}^2}{(P_1 - P_2)^2}$$

Where,

$$\bar{P} = \frac{P_1 + P_2}{2}$$

P_1 : Proportion in the first group

P_2 : Proportion in the second group

α : Significance level

$1-\beta$: Power

METHODOLOGY

All patients aged 18 years and above with mycosis fungoides, classical plaque psoriasis and discoid eczema diagnosed on the basis of history and clinical features and were willing to be a part of the study were screened after the patient information sheet was given (Annexure 2) and written informed consent (Annexure 3) was taken. Data collection was done using a proforma (Annexure 4) which included demographic details and relevant history and clinical examination to obtain the patient profile.

- **Patient selection**

Clinical examination was done and description including morphology and distribution and total body surface area of all lesions suggestive of mycosis fungoides, classical plaque psoriasis and discoid eczema were recorded.

Mycosis fungoides: Patients who fulfilled the following diagnostic clinical criteria were included in the study- a) Basic criteria- Persistent and/or progressive patches/thin plaques; b) Additional criteria - i) Non-sun exposed location ii) Size/shape variation and iii) Poikiloderma

Psoriasis: Patients with characteristic features of psoriasis which includes sharply demarcated, erythematous, scaly patches or plaques appearing anywhere on the body, commonly affected areas including the scalp, trunk, gluteal fold, and extensor surfaces such as the elbows and knees were included in the study.

Discoid eczema: Patients who presented with lichenified papules and plaques and had classic historical features of intensely pruritic, erythematous papules and vesicles with

excoriations and serous exudates were included in the study. All discoid eczema cases with different aetiologies like dry discoid eczema, atopic dermatitis, asteatotic eczema and stasis eczema, that presents with scaly plaques over trunk and extremities were also included in the study.

- **Dermoscopy**

Dermoscopy was done on three lesions each in all enrolled patients. Patients with a history of use of topical steroids or immunomodulators and the duration of use of topicals were recorded as it could modify dermoscopic features. However, such patients were recruited after stopping the topicals for a period of 1 week and dermoscopic features were recorded at the second visit. Clinical and dermoscopy photographs were obtained using a FotoFinder Systems GmbH Medicam 800 (software version from 2.1) at 20x or 60x magnification from the lesions. FotoFinder (FotoFinder Systems GmbH, Bad Birnbach, Germany) video dermatoscope is an immersion dermoscopy non-polarized system equipped with a video camera with lenses providing magnifications ranging from 20X to 120X. The contact medium used was radiographic jelly (ROYAL – composed of triethanolamine, monopropylene glycol, preservatives). The images obtained were visualized on a monitor and stored on a computer.

Dermoscopic screening was done over the entire lesion and their features were noted. Dry dermoscopy was done to visualise the scale characteristics while a magnification of 20X from the lesions was used to view the overall dermoscopic patterns and finer details were seen in 40X and 60X magnification.

- **Histopathology and immunohistochemistry**

The suspected mycosis fungoides patients with no history of using topical steroids or immunomodulators within a period of 1 week underwent biopsy for histopathological confirmation of the diagnosis with immunohistochemistry profile. The biopsy was performed from the most indurated lesions of the patients.

The histopathological features that were assessed include: *i)* Atypical irregular lymphoid cells within the epidermis, *ii)* lymphocytes disposed as solitary units and aligned in the basal layer of the epidermis (epidermotropism), *iii)* lymphohistiocytic infiltrate surrounding the vessels, *iv)* lack of spongiosis of the epidermis and *v)* psoriasiform epidermal hyperplasia. In immunohistochemistry, the lesions were assessed whether they were positive for CD3, CD4 and negative for CD7.

Only patients with a histopathological confirmation for mycosis fungoides were included in the study. Subsequently, the dermoscopic features of biopsy proven mycosis fungoides (patch and plaque stages), classical plaque psoriasis and discoid eczema were compared with each other. The dermoscopic findings were broadly categorised into vascular structures, scale characteristics, background colours and other dermoscopic findings. The following variables were included under each category:

a) Vascular structures:

i) Fine short linear vessels; *ii)* Dotted vessels; *iii)* Red globules; *iv)* Glomerular vessels *v)* Ring/Hairpin vessels; *vi)* Spermatozoa-like structures; *vii)* Y- shaped arborizing vessels; *viii)* Vessel arrangement: *a)* regular, *b)* clustered and *c)* patchy

b) Scale characteristics:

i) White scales; *ii)* Yellow scales; *iii)* Scale distribution: *a)* patchy, *b)* peripheral and *c)* diffuse;

c) Background colour:

i) Regular-appearing white structureless areas; *ii)* Orange-yellow patchy areas; *iii)* Background colour: *a)* light red and *b)* dull red *c)* brown; *iv)* Yellow crusts;

d) Other dermoscopic findings:

i) Perifollicular accentuation in folliculotropic mycosis fungoides and *ii)* Comedo-like openings in folliculotropic mycosis fungoides.

In patients with mycosis fungoides, clinical staging was done while severity scores like Psoriasis Area and Severity Index (PASI) (Annexure 6) and Eczema Area and Severity Index (EASI) (Annexure 7) were done for psoriasis and eczema respectively.

The Dermatology life quality index questionnaire (DLQI) (Annexure 5) was administered by the investigator to all the patients with mycosis fungoides. Scores were calculated and recorded in the DLQI questionnaire.

STATISTICAL METHODS

Data entry was done using EPI Data 3.1. Data analysis was reported using SPSS 21.0. Descriptive statistics was reported using Mean ± SD for continuous variables, frequency and percentage for categorical variables. A comparison between the groups for continuous variables was reported using two independent sample t test which are

normally distributed. Non-normal data was reported using Mann Whitney's U test. Categorical variables were reported using Chi Square/Fisher's exact test. P value <0.05 was considered statistically significant.

IRB APPROVAL

The study was approved by the Institutional Review Board. (IRB approval no -13456). Details present in Annexure 1.

RESULTS

Forty-eight patients who attended our dermatology outpatient department were prospectively recruited during the study period between October 2020 and September 2021 (12 months) of which 12 patients had Mycosis fungoides and 18 patients each had Plaque psoriasis and Discoid eczema. Three lesions from each recruited patient were studied for dermoscopic features. Features of patch and plaque stage of mycosis fungoides were recorded and compared with that of plaque psoriasis and discoid eczema. All 36 lesions of mycosis fungoides, 54 lesions each of plaque psoriasis and discoid eczema were recorded separately.

1. DEMOGRAPHIC PROFILE

1.1 MYCOSIS FUNGOIDES

1.11 DEMOGRAPHIC FEATURES OF MYCOSIS FUNGOIDES

Among the mycosis fungoides patients, it was observed that the median age at presentation was 42.5 years with a IQR of 30-45.8. The maximum number of patients were in their fourth decade of life (40-50 years).

Table 7: Demographic features of mycosis fungoides group of patients

Demographic features	**Mycosis fungoides (n=12)**
1. Median age at presentation (IQR) (Minimum-Maximum)	42.5 years (30-45.8) (18 years-72 years)
2. Median age at onset (IQR)	32.5 years (24.3-40.5)

(Minimum-Maximum)	(14 years-69 years)
3. Median duration of disease (IQR) (Minimum-Maximum)	66 months (34.5-129) (3 months-180 months)
4. Gender distribution n (%) a) Males b) Females c) Male: Female ratio	 9 (75%) 3 (25%) 3:1

(IQR- Interquartile range)

1.12 LOCATION OF RESIDENCE OF MYCOSIS FUNGOIDES PATIENTS

There were 58.3% patients who belonged to an urban area and 41.7% who were from a rural location.

1.13 GEOGRAPHICAL DISTRIBUTION OF MYCOSIS FUNGOIDES PATIENTS

There were 41.7% patients who hailed from Tamil Nadu followed by 25% from West Bengal. There were 16.7% patients from Kerala and 8.3% each from Andhra Pradesh and Bihar.

1.14 OCCUPATION OF MYCOSIS FUNGOIDES PATIENTS

There were 25% of the patients who were professionals. Laborers and farmers, business people and homemakers each comprised 16.7% of the disease group. Each group of retired employees, private employees and students accounted for 8.3%.

1.2 PLAQUE PSORIASIS AND DISCOID ECZEMA (CONTROL POPULATION)

1.21 DEMOGRAPHIC FEATURES OF CONTROL POPULATION

Table 8: Demographic features of plaque psoriasis and discoid eczema group of patients

Demographic features	**Plaque psoriasis (n=18)**	**Discoid eczema (n=18)**
1. Median age at presentation (IQR) (Minimum-Maximum)	42.5 years (36,51.8) (18 years-80 years)	38.5 years (29.8-56.5) (18 years-81 years)
2. Age of maximum number of patients	Fourth decade of life	Third decade of life
3. Median age at onset (IQR) (Minimum-Maximum)	33.5 years (25.3,48.8) (15 years-73 years)	32 years (23-55.8) (5 years-77 years)
4. Median duration of disease (IQR) (Minimum-Maximum)	84 months (29,129) (2 months-288 months)	30 months (5.8-57) (1 month-300 months)
5. Gender distribution n (%) a) Males b) Females c) Male: Female ratio	 13 (72.2%) 5 (27.8%) 2.6:1	 13 (72.2%) 5 (27.8%) 2.6:1

(IQR- Interquartile range)

1.22 LOCATION OF RESIDENCE OF CONTROL POPULATION

Among patients with plaque psoriasis, 55.6% were from an urban area and the rest 44.4% of the patients were from a rural area.

In our study, among the patients with discoid eczema, it was found that there were 83.3% who were from an urban set up and only 6.7% were from a rural area.

1.23 GEOGRAPHICAL DISTRIBUTION OF CONTROL POPULATION

In plaque psoriasis group, majority of patients were from West Bengal (38.9%) and 33.3% from Tamil Nadu. Among the rest of the patients, 11.1% were from Andhra Pradesh and 5.6% each were from the states of Bihar and Tripura. Patients from Bangladesh formed 5.6%.

Among the discoid eczema group, the majority (38.9%) belonged to West Bengal and 33.3% from Tamil Nadu. The remaining 16.7% were from Jharkhand and 5.6% each from Kerala and Bihar.

1.24 OCCUPATION OF CONTROL POPULATION

In plaque psoriasis patients, it was observed that there were 22.2% each who were employed in private firms and were homemakers. There were 16.7% patients who were laborers and farmers, 11.1% each in the groups of business people, government service and students and 5.6% were professionals.

Among discoid eczema patients, there were 22.2% who were leading a retired life, 16.7% each of private employees, homemakers and students, 11.1% each who were

involved in business and working as professionals and 5.6% patient who were laborers and farmers.

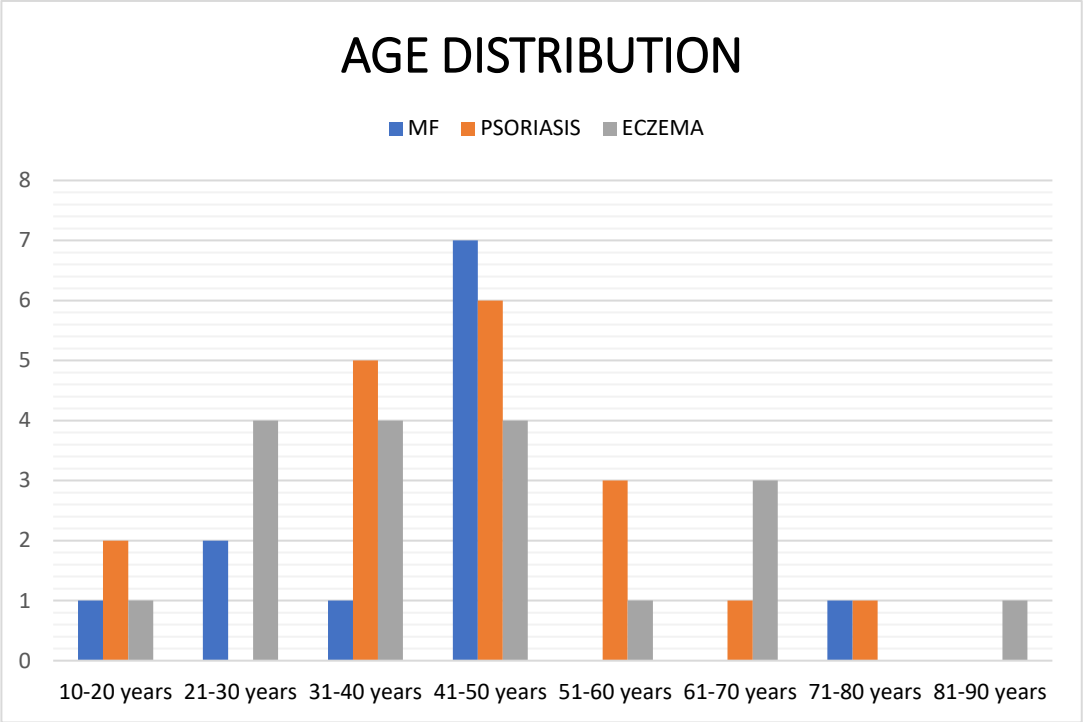


Figure 5: Distribution of patients in different age groups in each study population

The maximum number of mycosis fungoides and plaque psoriasis patients were in the age group of 41-50 years while discoid eczema patients were equally distributed in the age groups of 21-30 years,31-40 years and 41-50 years.

2. CLINICAL PROFILE

2.1 MYCOSIS FUNGOIDES

2.11 CLINICAL VARIANTS

Among the 12 patients in the mycosis fungoides group, 5 patients (42%) had classical mycosis fungoides. The unusual variants of mycosis fungoides seen included hypopigmented mycosis fungoides in 3 patients (25%), poikilodermatous mycosis

fungoides in 2 patients (16.7%) and 1 patient (8.3%) each with erythrodermic mycosis fungoides and Sezary syndrome.

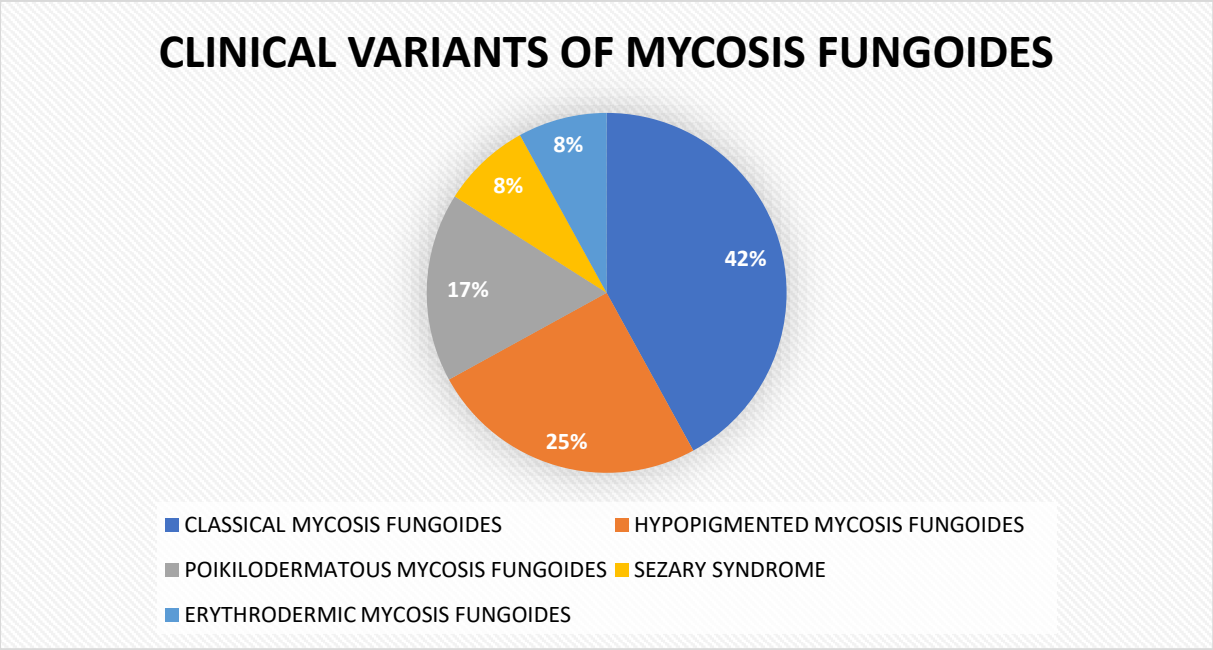


Figure 6: Clinical variants of mycosis fungoides in the study

2.12 CLINICAL FEATURES

Of the 12 patients included in the study, 1 patient presented with only patches, nine patients with patches and plaques; of whom four patients had nodules/tumours. One patient had erythroderma with coalescing lichenoid plaques with few areas of depigmentation. The patient with Sezary syndrome had erythroderma with lichenified areas and infiltrated papules. The majority of patients presented with itchy erythematous scaly patches or plaques over the trunk and extremities with no extensor predilection. The extremities were predominantly involved in 6 patients followed by the trunk in 4 patients and 2 patients were in erythroderma. Hypopigmented mycosis fungoides presented as hypopigmented to achromic patches with a predominant trunk and extremities distribution. Poikilodermatous mycosis fungoides presented as diffuse

patches consisting of mottled hyper- and hypo-pigmentation, telangiectasias and atrophy. There were 2 patients (16.7%) who reported winter exacerbations and none of the patients had photosensitivity. Significant loss of weight was noted in 1 patient (8.3%) with Sezary syndrome. Significant lymphadenopathy was present in 4 patients (33.3%) while none of the patients had hepatomegaly or splenomegaly.

a) Sun-exposed and non-sun exposed lesions: On examination, it was observed that the majority of the lesions, 30/36 (83.3%) were present on non- sun exposed areas predominantly over extremities and trunk while the rest, 6/36 lesions (16.7%) were present on sun exposed areas.

b) Body surface area (BSA): There were 11 patients (91.7%) with body surface area (BSA) involvement of >10%. Of which, 3 patients had 10%-25%, 3 patients had 25%-50%, 2 patients with 50%-75% and 3 patients with >75% BSA involvement. There was only 1 patient (8.3%) with BSA <10%.

2.13 STAGING OF MYCOSIS FUNGOIDES

The staging of mycosis fungoides was done based on the TNMB classification. The stage of presentation in the majority of mycosis fungoides patients in our study was Stage IB in 5/12 patients (41.7%) followed by 2/12 patients (16.7%) in Stage IIA and IIB while 1/12 patients (8.3%) were in Stage IA, IIIA and IVA1. There were no patients in stages IIIB, IVA2 and IVB in our study.

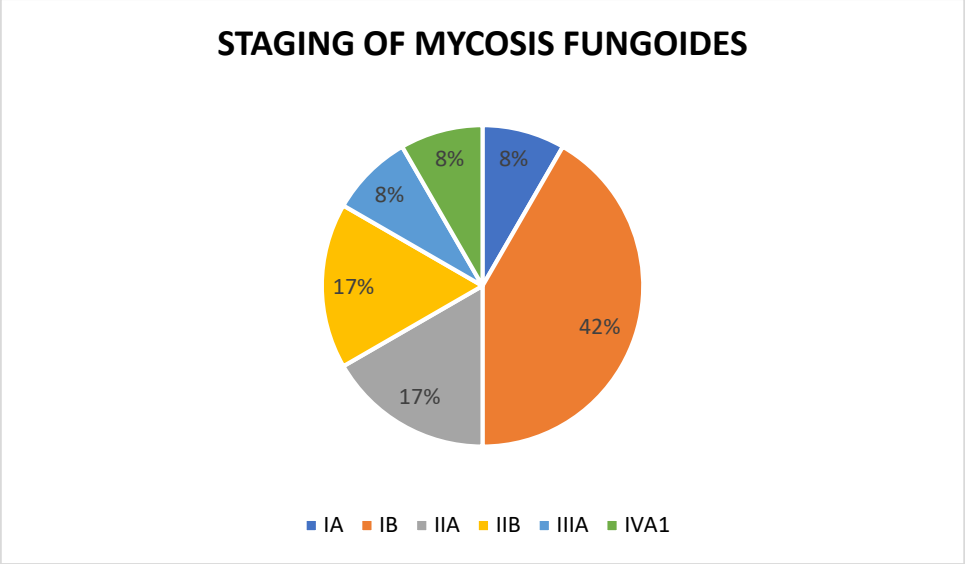


Figure 7: Frequency of mycosis fungoides patients under each stage of mycosis fungoides.

2.14 TREATMENT

There were 6 newly diagnosed cases of mycosis fungoides while 6 patients were known cases of mycosis fungoides who presented with new onset lesions. Among the 12 patients with mycosis fungoides, 2 patients (16.7%) had been on topical immunomodulators alone, 6 patients (50%) on topical corticosteroids alone and 3 patients (25%) had been on methotrexate along with topical medications in the past while the Sezary syndrome patient (8.3%) had been on pegylated interferon. Subsequently, 2 patients (16.7%) had received chemotherapy with CHOP regimen (cyclophosphamide, hydroxydaunorubicin (doxorubicin), oncovin (vincristine) and prednisolone). During the month prior to the study, three out of 12 cases (25%) were on topical or systemic treatment while the rest, 9/12 cases (75%) were not on any treatment. Out of the 3 patients on treatment, 1 patient (8.3%) was solely on systemic treatment, 1

patient (8.3%) was on topical corticosteroid and the other (8.3%) was on phototherapy. However, dermoscopy was done after 1 week of stopping the topical medications.

2.2 PLAQUE PSORIASIS

2.21 CLINICAL FEATURES

Among the 18 patients with plaque psoriasis, all had erythematous scaly plaques predominantly over the extensor aspect of the body with 11 patients (61.1%) having seasonal exacerbation of lesions. 10 patients (55.6%) had winter exacerbations while 1 patient (5.6%) had summer exacerbation. A family history of psoriasis was present in 5 patients (27.8%). Nail involvement was present in 2 patients (11.1%) while none of the patients were noted to have arthritis. There were 11 patients (61.1%) with >10% body surface area (BSA) involvement and 7 patients (38.9%) with BSA involvement <10%.

2.22 PSORIASIS ACTIVITY AND SEVERITY INDEX (PASI)

The mean Psoriasis Activity and Severity Index (PASI) score calculated from our group of plaque psoriasis patients was 7.93 ± 4.57 (Range: 2-16.2). According to PASI scores, there were 8 patients (44.4%) with mild, 8 patients (44.4%) with moderate and 2 patients (11.1%) with severe psoriasis.

2.23 TREATMENT

Of the 18 patients, 12 (66.7%) had history of prior treatment; 7 (38.9%) who had used topical steroids and 5 (27.8%) who had been on Methotrexate. During the month prior to the study, 16 patients (88.9%) were not on any treatment while 1 (5.6%) of them was

on Apremilast and Cyclosporine and the other was on topical corticosteroid and vitamin D analogue.

2.3 DISCOID ECZEMA

2.31 CLINICAL FEATURES

Among the 18 patients with discoid eczema, all the patients had lesions predominantly over the extremities. There were 5 patients (27.8%) with seasonal exacerbation with 3 (16.7%) having winter exacerbation alone and 2 patients (11.1%) having both summer and winter exacerbations. Seven patients (38.9%) had a personal history of atopy and 4 patients (22.2%) gave a positive family history of atopy. Four patients in the study group had atopic eczema. There were 2 patients (11.1%) with body surface area (BSA) involvement of >10% and 16 patients (88.9%) with BSA <10%.

2.32 ECZEMA AREA AND SEVERITY INDEX (EASI)

The mean Eczema Area and Severity Index (EASI) score calculated from our group of discoid eczema patients was 4.64 ± 4.15 (Range: 1.2-14.1). According to EASI scores, there were 14 patients (77.8%) with mild eczema, 4 patients (22.2%) with moderate eczema and none with severe or very severe eczema.

2.33 TREATMENT

Of the 18 patients with discoid eczema, 13 patients (72.2%) had history of prior treatment; 12 (66.7%) had been on topical corticosteroids alone and 1 (5.6%) had been on topical immunomodulators and corticosteroids. During the month prior to the study,

three out of 18 patients (16.7%) had been on topical corticosteroids while 15 patients (83.3%) were not on any treatment.

3. HISTOPATHOLOGY AND IMMUNOHISTOCHEMISTRY OF MYCOSIS FUNGOIDES

Histopathological examination and immunohistochemistry were done from 3 lesions each from all the 12 patients with mycosis fungoides.

All the patients were noted to have the characteristic histopathological findings of *1)* atypical irregular lymphoid cells within the epidermis, *2)* lymphocytes disposed as solitary units and aligned in the basal layer of the epidermis and *3)* lymphohistiocytic infiltrate surrounding the vessels. Lack of spongiosis of the epidermis was seen in 9 mycosis fungoides patients (75%) while 3 patients (25%) showed minimal spongiosis. Among the 12 patients with mycosis fungoides, psoriasiform epidermal hyperplasia was seen in 7 patients (58.3%) of which 2 had hypopigmented, 2 had poikilodermatous, 3 had classical mycosis fungoides and 1 with Sezary syndrome.

Immunohistochemistry was positive for CD3, CD4 and negative for CD7 in all patients with mycosis fungoides. CD8 predominance was seen in 2/3 patients (66.7%) with hypopigmented mycosis fungoides and 1/2 patients (50%) with poikilodermatous mycosis fungoides.

4. DERMOSCOPY

The dermoscopic features from each lesion of mycosis fungoides, plaque psoriasis and discoid eczema were recorded. In our study, the dermoscopic findings were broadly categorised into vascular structures, scale characteristics, colour and others.

These findings were recorded based on the following variables: *a)* Regular-appearing white structureless areas, *b)* Fine short linear vessels, *c)* Dotted vessels, *d)* Red globules, *e)* Glomerular vessels, *f)* Ring/ Hairpin-like vessels, *g)* Spermatozoa-like vascular structures, *h)* Y- shaped arborizing vessels, *i)* Regular, clustered or patchy vessel arrangement, *j)* White scales, *k)* Yellow scales, *l)* Patchy, peripheral or diffuse scale distribution, *m)* Orange-yellow patchy areas, *n)* Light red, dull red or brown background, *o)* Yellow crusts, *p)* Perifollicular accentuation, and *q)* Comedo-like openings.

4.1 MYCOSIS FUNGOIDES

4.11 VASCULAR STRUCTURES IN MYCOSIS FUNGOIDES

The most common dermoscopic finding among vascular structures seen in mycosis fungoides lesions was fine short linear vessels seen in 22/36 lesions (61.1%) followed by dotted vessels seen in 20/36 lesions (55.6%).

Glomerular vessels were seen in 12/36 lesions (33.3%) while Y-shaped arborising vessels were seen in 11/36 lesions (30.6%) and red globules in 10/36 lesions (27.8%).

Spermatozoa-like structures and hairpin vessels were seen in 9/36 lesions (25%) each.

The vessel arrangement in the majority of our study participants was clustered in 15/36 lesions (41.7%) followed by patchy in 14/26 lesions (38.9%) while none of the lesions showed a regular arrangement.

In our study, a radial arrangement of vascular structures around the lesion was noted in 3/9 patients (25%) of mycosis fungoides.

Table 9: Dermoscopic features of vascular structures in mycosis fungoides

Dermoscopic finding	MYCOSIS FUNGOIDES (n=36 lesions) n (%)
1. Dotted vessels	20 (55.6%)
2. Fine short linear vessels	22 (61.1%)
3. Red globules	10 (27.8%)
4. Glomerular vessels	12 (33.3%)
5. Ring/ Hairpin-like vessels	9 (25%)
6. Spermatozoa-like structures	9 (25%)
7. Y-shaped arborising vessels	11 (30.6%)
8. Vessel arrangement	
a) Regular	-
b) Clustered	15 (41.7%)
c) Patchy	14 (38.9%)

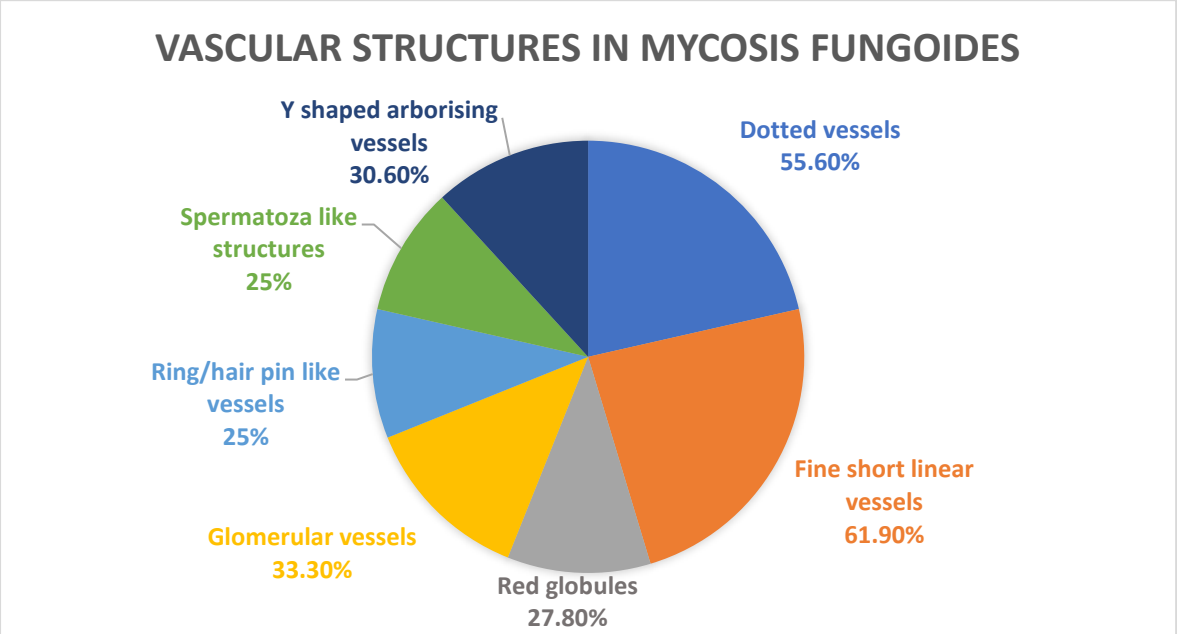


Figure 8: Frequency of vascular structures seen in mycosis fungoides lesions

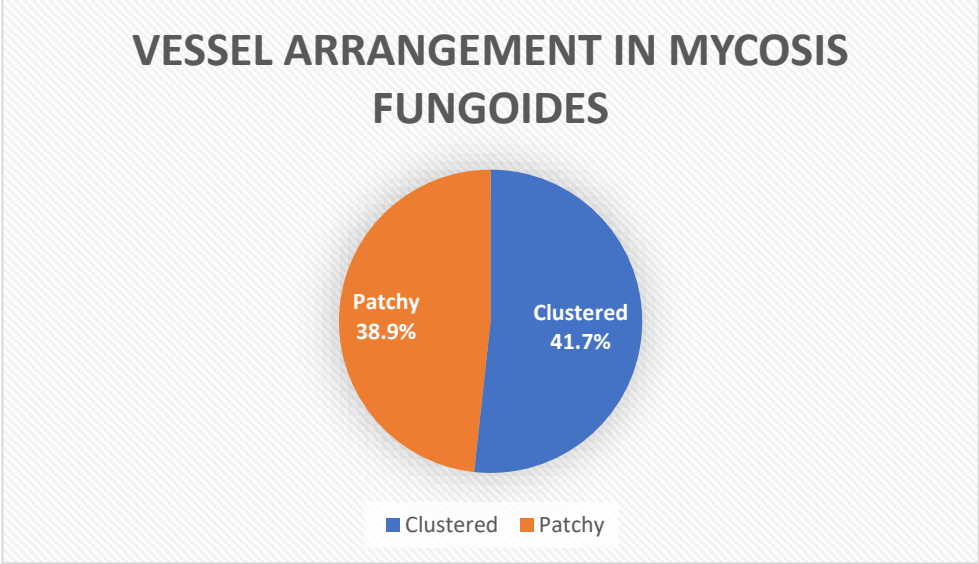
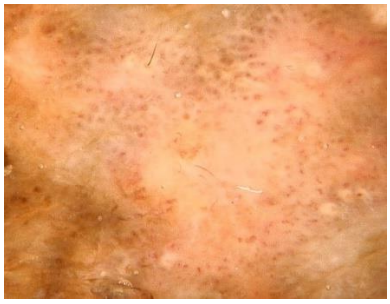
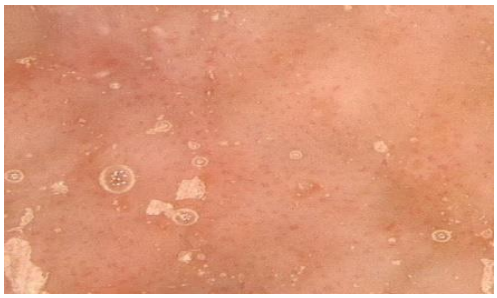


Figure 9: Distribution of vessel arrangement seen in mycosis fungoides lesions



Patchy vessel arrangement (20X)



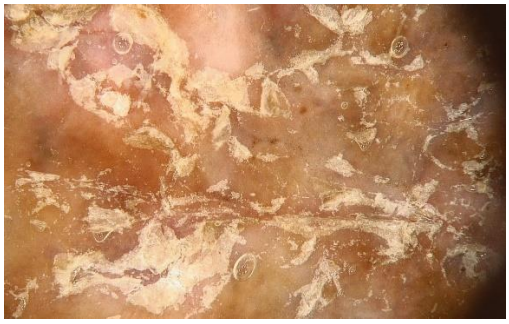
Clustered vessel arrangement (20X)

4.12 SCALE CHARACTERISTICS IN MYCOSIS FUNGOIDES

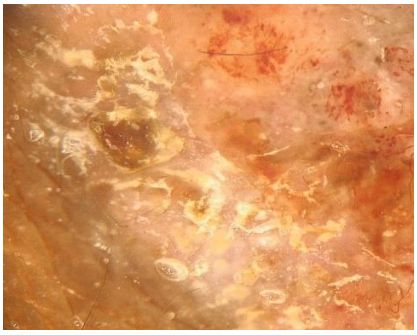
White scales were seen in 27/36 lesions (75%) while yellow scales were seen only in 8/36 lesions (22.2%). The scale distribution was patchy in the majority of lesions 26/36 (72.2%) while diffuse arrangement was seen in 1 lesion (2.8%). Peripheral arrangement was not seen in any lesion.

Table 10: Dermoscopic features of scales seen in mycosis fungoides lesions

Dermoscopic finding	MYCOSIS FUNGOIDES (n=36 lesions) n (%)
1. Scale colour	
a) White scales	27 (75%)
b) Yellow scales	8 (22.2%)
2. Scale distribution	
a) Patchy	26 (72.2%)
b) Peripheral	-
c) Diffuse	1 (2.8%)
3.Yellow crusts	3 (8.3%)



White scales with diffuse distribution(20X)



Yellow scales with patchy distribution (20X)

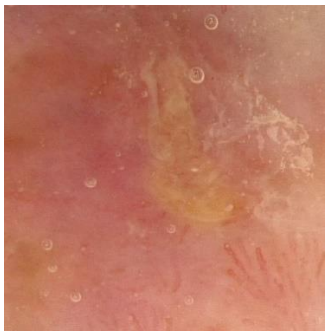
4.13 BACKGROUND COLOURS IN MYCOSIS FUNGOIDES

The background colour was brown in majority of the lesions with 20/36 lesions (55.6%) while light red colour was seen in 10/36 lesions (27.8%) and dull red seen in 6/36 lesions (16.7%).

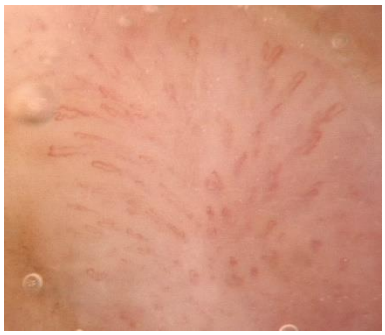
Regular appearing white structureless areas were seen in 21/36 lesions (58.3%) and orange-yellow patchy areas were found in 23/36 lesions (63.9%).

Table 11: Background colours seen in mycosis fungoides lesions

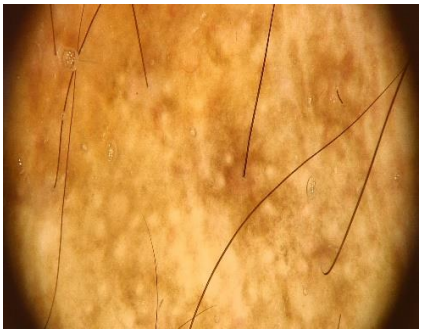
Dermoscopic finding	**MYCOSIS FUNGOIDES (n=36 lesions) n (%)**
1. Background colour	
a) Light red	10 (27.8%)
b) Dull red	6 (16.7%)
c) Brown	20 (55.6%)
2Regular appearing white structureless areas	21(58.3%)
3.Orange-yellow patchy areas	23 (63.9%)



Light red background (40X)



Dull red background (40X)



Brown background (40X)

4.14 OTHER DERMOSCOPIC FINDINGS IN MYCOSIS FUNGOIDES

Perifollicular accentuation and comedo-like openings were seen only in 3/36 lesions (8.3%) each in our study.

Table 12: Other dermoscopic findings seen in mycosis fungoides

Dermoscopic finding	MYCOSIS FUNGOIDES (n=36 lesions) n (%)
1.Perifollicular accentuation	3 (8.3%)
2.Comedo-like openings	3 (8.3%)

4.2 COMPARISON OF DERMOSCOPIC FEATURES OF MYCOSIS FUNGOIDES WITH PLAQUE PSORIASIS AND DISCOID ECZEMA

4.21 VASCULAR STRUCTURES

In our study, dotted vessels were seen only in a little more than half the number of lesions of mycosis fungoides i.e., 20/36 lesions (55.6%) whereas it was a prominent feature in plaque psoriasis with 53/54 lesions (98.2%) and discoid eczema with 49/54 lesions (90.7%). This was found to be statistically significant ($p < 0.001$) for plaque psoriasis and discoid eczema.

Fine short linear vessels were seen in 22/36 lesions (61.1%) of mycosis fungoides while it was seen only in 11/54 lesions (20.4%) of plaque psoriasis and 21/54 lesions (38.9%) of discoid eczema. This finding was found to be statistically significant ($p < 0.001$) for mycosis fungoides.

Spermatozoa-like structures were another finding which was limited to mycosis fungoides with 9/36 lesions (25%) with neither plaque psoriasis or discoid eczema showing a similar finding.

Red globules were found only in 10/36 mycosis fungoides lesions (27.8%) while plaque psoriasis and discoid eczema had 40/54 lesions (74.1%) and 28/54 lesions (51.9%) respectively.

Glomerular vessels were seen in 12/36 mycosis fungoides lesions (33.3%) while plaque psoriasis had 31/54 lesions (57.4%) and discoid eczema had 15/54 lesions (27.8%), which was statistically significant for plaque psoriasis (p= 0.004).

Ring/hairpin-like vessels were seen in 9/36 mycosis fungoides lesions (25%) whereas plaque psoriasis showed 12/54 (22.2%) of them while discoid eczema showed only as few hair pin vessels with 3/54 lesions (5.6%). This finding was statistically significant (p= 0.02) for mycosis fungoides.

The vessel arrangement seen in the majority of mycosis fungoides patients were clustered type (15/36; 41.7%) and patchy type (14/36; 38.9%). Regular type arrangement was not seen in any mycosis fungoides or discoid eczema lesions while plaque psoriasis patients in our study had 51/54 lesions (94.4%) showing regular vessel arrangement. Clustered arrangement was seen in 2/54 lesions (3.7%) of plaque psoriasis and 14/54 lesions (25.9%) of discoid eczema which was statistically significant for mycosis fungoides (p <0.001) while patchy vessel arrangement was seen in 1/54 lesions (1.9%) of plaque psoriasis and 37/54 lesions (68.5%) of discoid eczema.

Table 13: Comparison of dermoscopic findings of vascular structures in mycosis fungoides (MF) with that of plaque psoriasis and discoid eczema

Dermoscopic finding	MYCOSIS FUNGOIDES (n=36 lesions) n (%)	PLAQUE PSORIASIS (n=54 lesions) n (%)	DISCOID ECZEMA (n=54 lesions) n (%)	p value (significant if <0.05)
1. Dotted vessels	20 (55.6%)	53 (98.2%)	49 (90.7%)	**< 0.001**
2.Fine short linear vessels	22 (61.1%)	11 (20.4%)	21 (38.9%)	**< 0.001**
3. Red globules	10 (27.8%)	40 (74.1%)	28 (51.9%)	**< 0.001**
4. Glomerular vessels	12 (33.3%)	31 (57.4%)	15 (27.8%)	**0.004**
5.Ring/hairpin-like vessels	9 (25%)	12 (22.2%)	3 (5.6%)	**0.02**
6.Spermatozoa-like structures	9 (25%)	-	-	-
7.Y-shaped arborising vessels	11 (30.6%)	-	1 (1.9%)	**< 0.001**
8.Vessel arrangement				
a) Regular	-	51 (94.4%)	-	
b) Clustered	15 (41.7%)	2 (3.7%)	14 (25.9%)	**< 0.001**
c) Patchy	14 (38.9%)	1 (1.9%)	37 (68.5%)	**< 0.001**

4.22 SCALE CHARACTERISTICS

In our study, white scales were seen in 27/36 mycosis fungoides lesions (75%) while it was seen in all lesions (100%) in plaque psoriasis and discoid eczema patients. This was found to be statistically significant (p <0.001) for both plaque psoriasis and discoid eczema.

Yellow scales were seen in only 8/36 lesions of mycosis fungoides (22.2%) while 39/54 plaque psoriasis lesions (72.2%) and 35/54 discoid eczema lesions (64.8%) had the

same finding. This was again found to be statistically significant ($p < 0.001$) for both plaque psoriasis and discoid eczema.

The scale distribution seen in majority of mycosis fungoides lesions was patchy found in 26/36 lesions (72.2%) and 47/54 discoid eczema lesions (87%) while patchy scales were seen only in 21/54 plaque psoriasis lesions (38.9%). This was found to be statistically significant ($p < 0.001$) for both plaque psoriasis and discoid eczema.

Diffuse scale distribution was seen in only 3/36 mycosis fungoides lesions (8.3%) while 28/54 lesions (51.9%) of plaque psoriasis had the same distribution and discoid eczema had none.

Peripheral scales were not seen in any mycosis fungoides lesions while 5/54 plaque psoriasis lesions (9.3%) and 7/54 discoid eczema lesions (12.9%) showed the same finding. Yellow crusts were seen in only 3/36 lesions (8.3%) of mycosis fungoides while it was seen in 17/54 lesions (31.5%) of plaque psoriasis and 33/54 lesions (61.1%) of discoid eczema. This finding was found to be statistically significant ($p < 0.001$) for discoid eczema.

Table 14: Comparison of dermoscopic findings of the scales seen in mycosis fungoides with that of plaque psoriasis and discoid eczema.

Dermoscopic finding	MYCOSIS FUNGOIDES (n=36 lesions) n (%)	PLAQUE PSORIASIS (n=54 lesions) n (%)	DISCOID ECZEMA (n=54 lesions) n (%)	p value (significant if <0.05)
1. Scale colour				
a) White scales	27 (75%)	54 (100%)	54 (100%)	< **0.001**
b) Yellow scales	8 (22.2%)	39 (72.2%)	35 (64.8%)	< **0.001**
2.Scale distribution				
a) Patchy	26 (72.2%)	21 (38.9%)	47(87%)	**0.001**
b) Peripheral	-	5 (9.3%)	7(12.9%)	< **0.001**
c) Diffuse	1 (2.8%)	28 (51.9%)	-	< **0.001**
3.Yellow crusts	3 (8.3%)	17 (31.5%)	33 (61.1%)	< **0.001**

4.23 BACKGROUND COLOURS

In our study, the background colour seen in the majority of mycosis fungoides lesions was brown, found in 20/36 lesions (55.6%). The brown background colour was seen in 3/54 lesions (5.6%) of plaque psoriasis and 25/54 lesions (46.3%) of discoid eczema.

Light red background colour was seen in majority of plaque psoriasis lesions with 49/54 (90.7%) while only 10/36 lesions (27.8%) of mycosis fungoides and 1/54 lesions (1.9%) of discoid eczema showed the same. This was statistically significant for plaque psoriasis (p <0.001). Dull red background colour was seen only in 6/36 lesions (16.7%)

of mycosis fungoides, 2/54 lesions (3.7%) of plaque psoriasis and 28/54 lesions (51.9%) of discoid eczema which was statistically significant (p <0.001) for discoid eczema.

Regular appearing white structureless areas were seen exclusively in mycosis fungoides comprising 21/36 lesions (58.3%). Orange yellow patchy areas were another finding seen exclusively in mycosis fungoides and was found in 23/36 lesions (63.8%). Plaque psoriasis and discoid eczema did not show both these features.

Table 15: Comparison of dermoscopic findings of background colour seen in mycosis fungoides with that of plaque psoriasis and discoid eczema.

Dermoscopic finding	MYCOSIS FUNGOIDES (n=36 lesions) n (%)	PLAQUE PSORIASIS (n=54 lesions) n (%)	DISCOID ECZEMA (n=54 lesions) n (%)	p value (significant if <0.05)
1. Background colour				
a) Light red	10 (27.8%)	49 (90.7%)	1 (1.9%)	< **0.001**
b) Dull red	6 (16.7%)	2 (3.7%)	28 (51.9%)	< **0.001**
c) Brown	20 (55.6%)	3 (5.6%)	25 (46.3%)	**0.001**
2.Regular appearing white structureless areas	21 (58.3%)	-	-	-
3.Orange-yellow patchy areas	23 (63.8%)	-	-	-

4.24 OTHER DERMOSCOPIC FINDINGS

In our study, perifollicular accentuation and comedo-like openings were seen exclusively in 3/36 lesions of mycosis fungoides (8.3%). None of the lesions of plaque psoriasis and eczema showed the above dermoscopic findings.

Table 16: Comparison of other dermoscopic findings seen in mycosis fungoides with that of plaque psoriasis and discoid eczema.

Dermoscopic finding	MYCOSIS FUNGOIDES (n=36 lesions) n (%)	PLAQUE PSORIASIS (n=54 lesions) n (%)	DISCOID ECZEMA (n=54 lesions) n (%)	p value (significant if <0.05)
1.Perifollicular accentuation	3 (8.3%)	-	-	-
2.Comedo-like openings	3 (8.3%)	-	-	-

5. DERMATOLOGICAL LIFE QUALITY INDEX (DLQI)

Dermatological Life Quality Index (DLQI) score was calculated for all patients with mycosis fungoides. The mean DLQI score calculated for our patients was 8.42 ± 8.709. The minimum DLQI score was 1 and maximum score was 27. DLQI score calculated from mycosis fungoides group of patients was used to categorise them into no effect, small effect, moderate effect, large effect and extremely large effect on patient's quality of life.

Table 17: Frequency of each DLQI category in mycosis fungoides lesions

DLQI (score)	n (%)
No effect on patient's life (0-1)	3 (25%)
Small effect on patient's life (2-5)	4 (33.3%)
Moderate effect on patient's life (6-10)	1 (8.3%)
Large effect on patient's life (11-20)	2 (16.7%)
Extremely large effect on patient's life (21-30)	2 (16.7%)

CLINICAL AND DERMOSCOPIC IMAGES

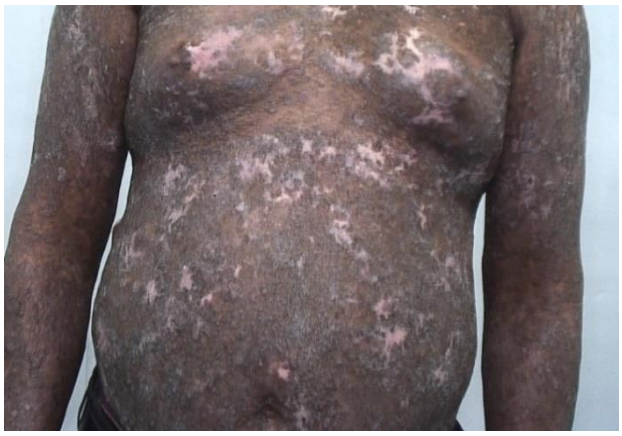


Fig. A: Erythrodermic mycosis fungoides

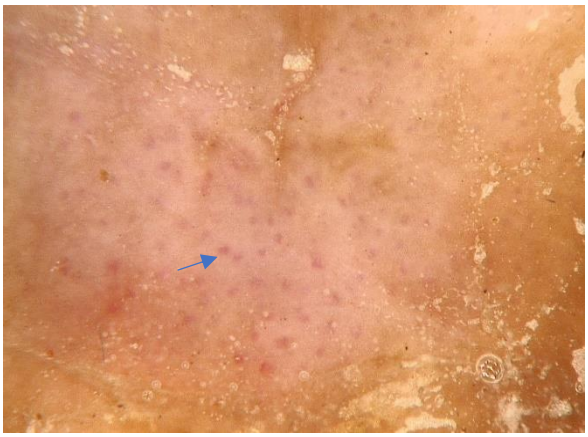


Fig. B: Dotted vessels with patchy vessel arrangement in mycosis fungoides (40X)

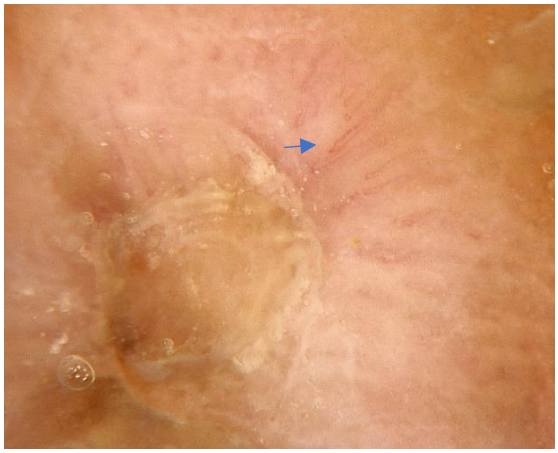


Fig. C: Hairpin vessels in mycosis fungoides (blue arrow) (60X)

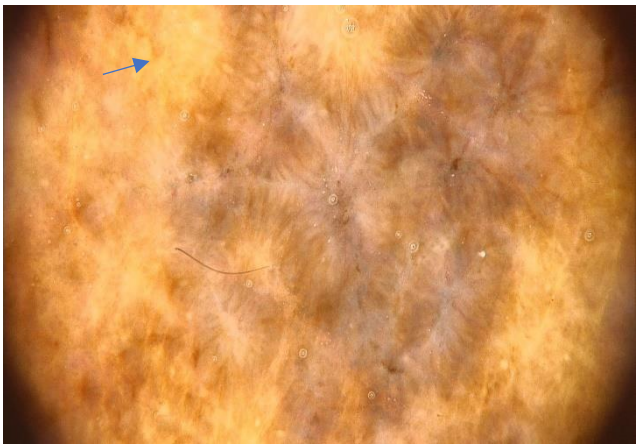


Fig. D: Orange-yellow patchy areas (blue arrow) in mycosis fungoides (20X)

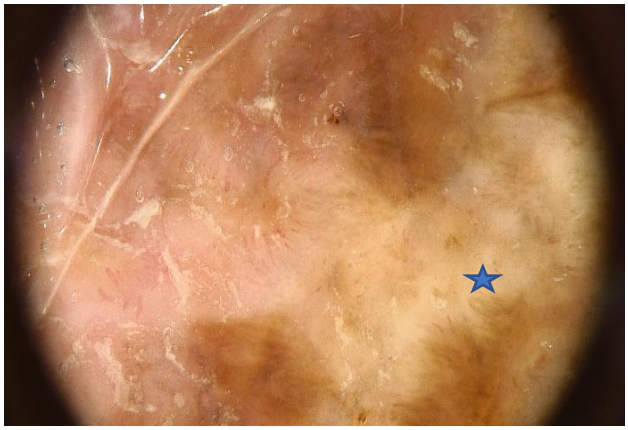


Fig. E: Structureless white areas (blue star) and spermatozoa-like structures (40X)

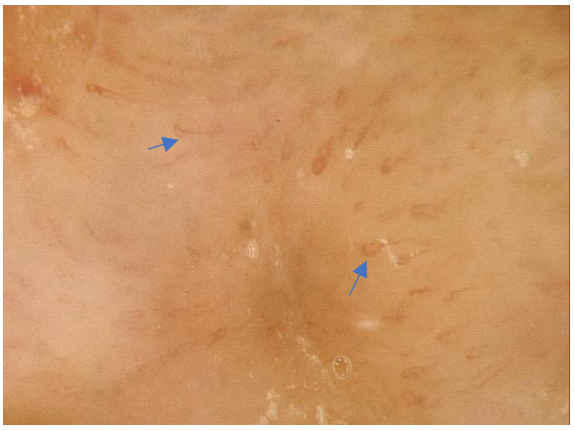


Fig. F: Spermatozoa-like structures (blue arrows) in mycosis fungoides (60X)

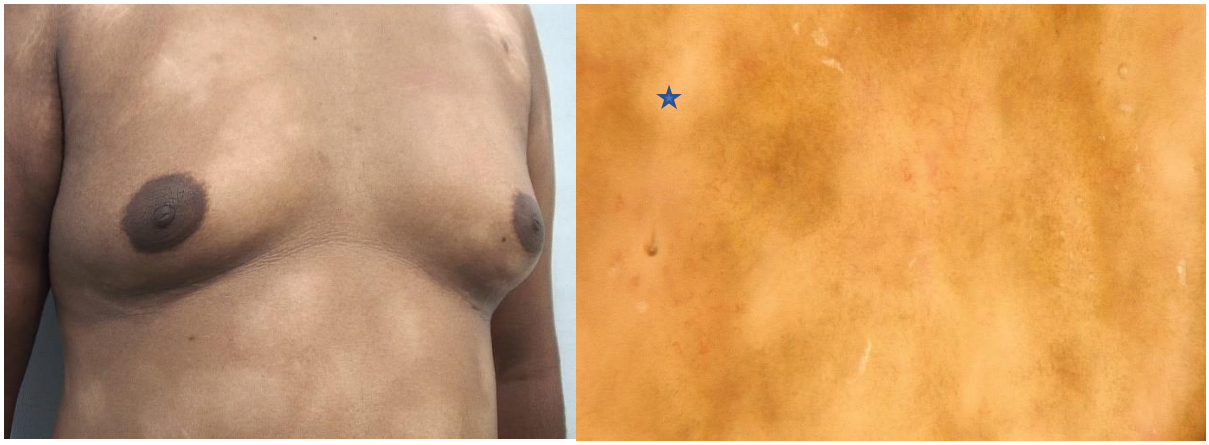


Fig. G: Patch stage of mycosis fungoides with dermoscopic image showing structureless areas (blue star) (20X)

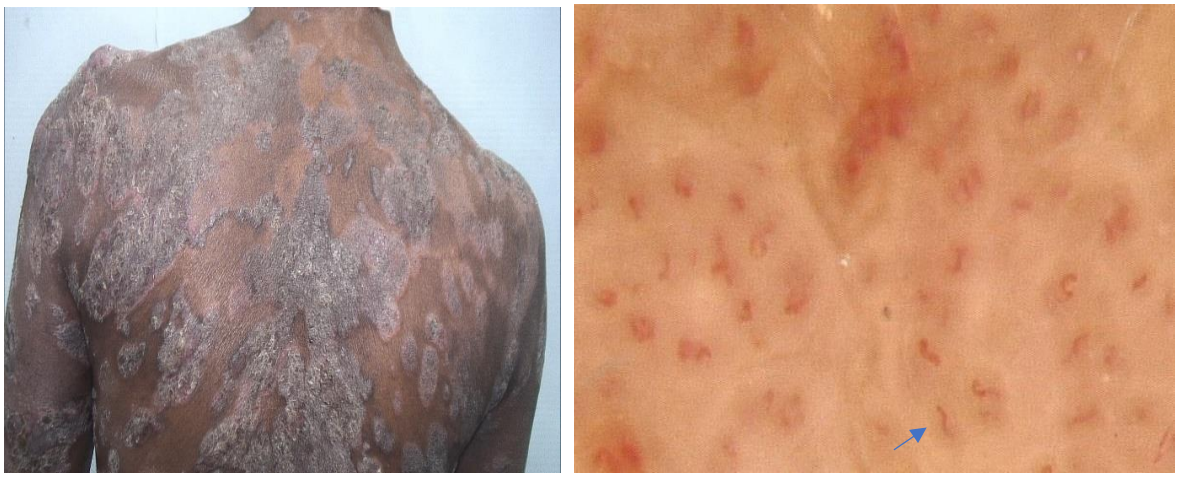


Fig. H: Plaque stage of mycosis fungoides and corresponding dermoscopic image showing fine short linear vessels (blue arrows) (60X)

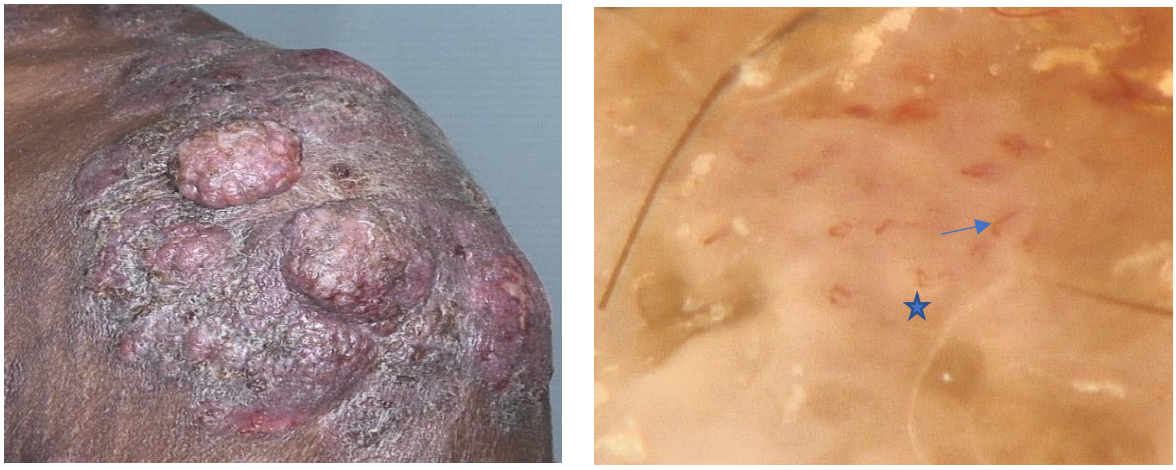


Fig. I: Tumor stage of mycosis fungoides and corresponding dermoscopic image showing fine short linear vessels (blue arrow) and hairpin loop vessels (blue star) (60X)

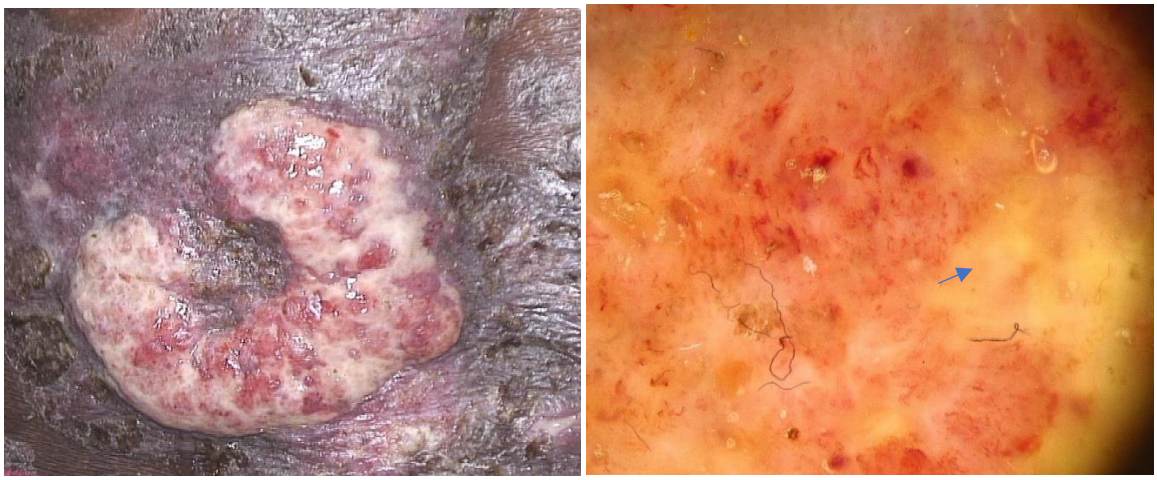


Fig. J: Ulcerated mycosis fungoides and corresponding dermoscopic image showing red globules and orange-yellow patchy areas (blue arrow) (40X)

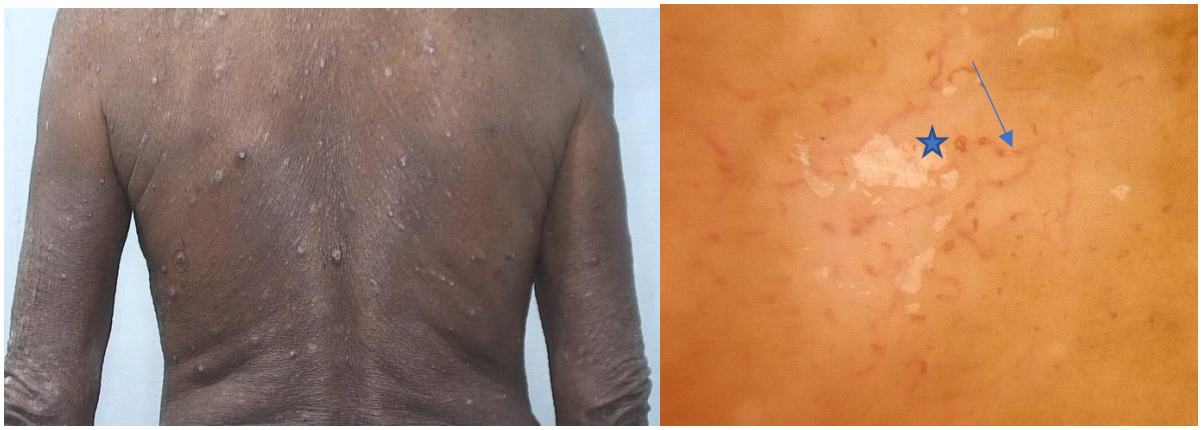


Fig. K: Nodular stage of mycosis fungoides & dermoscopic image showing glomerular vessels (blue star) and Y-shaped arborising vessels (blue arrow) (60X)

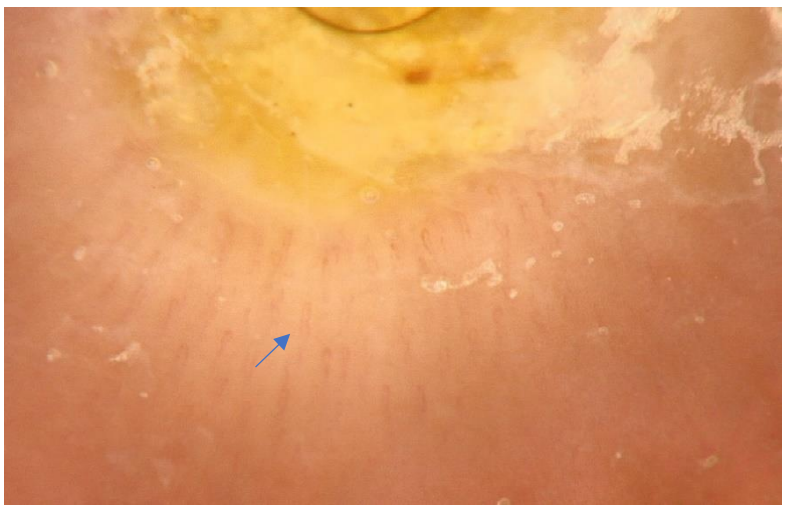


Fig. L: Radial arrangement of vessels around the lesion in mycosis fungoides (blue arrow) (40X)

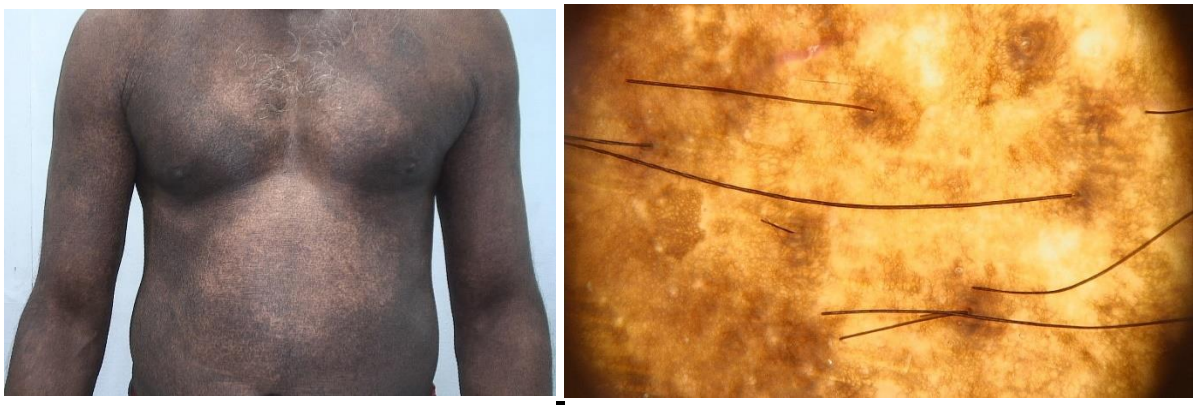


Fig. M: Poikilodermatous mycosis fungoides and dermoscopic image showing structureless areas, orange-yellow patchy areas and fenestrated pattern (20X)

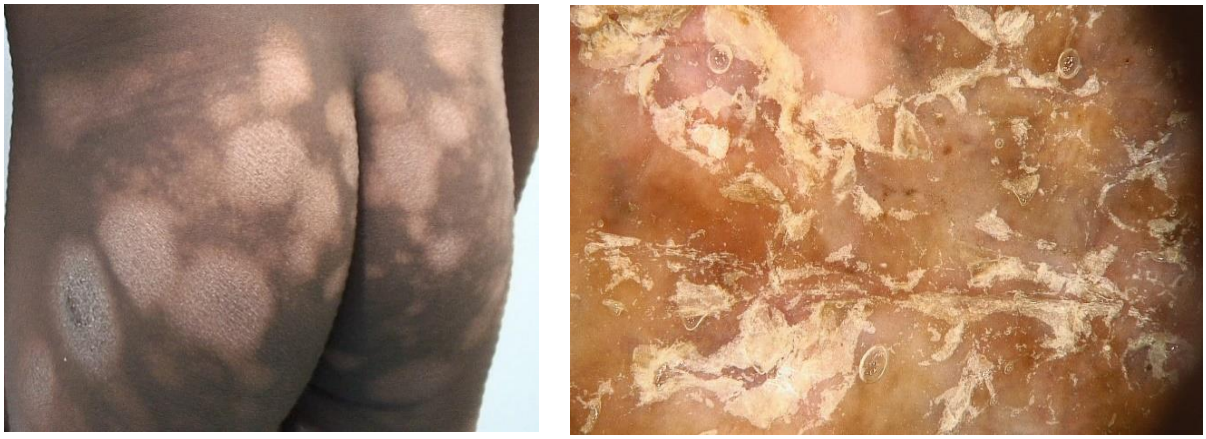


Fig. N: Hypopigmented mycosis fungoides and dermoscopic image showing white scales (40X)

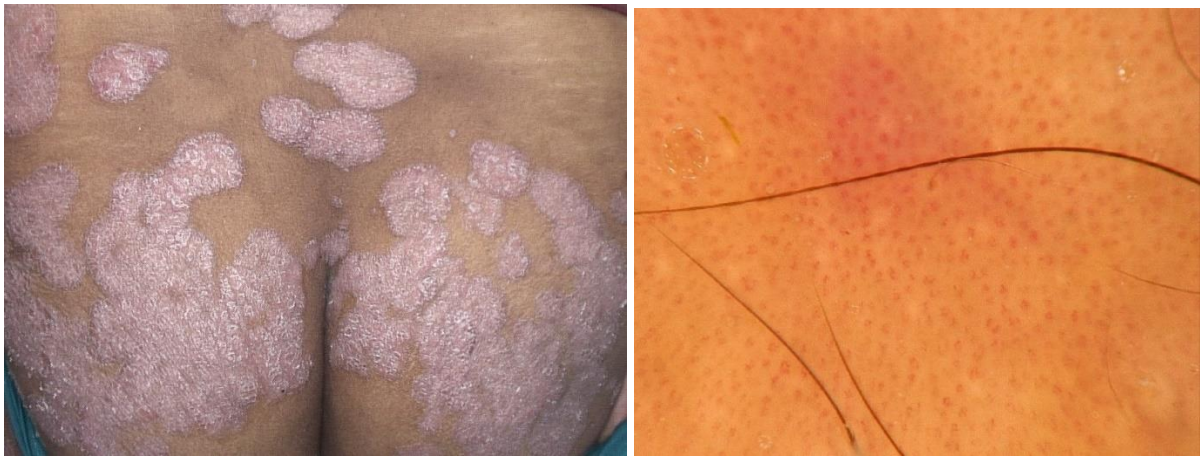


Fig. O: Plaque psoriasis and dermoscopic image showing dotted vessels in a regular pattern over a light red background (40X)

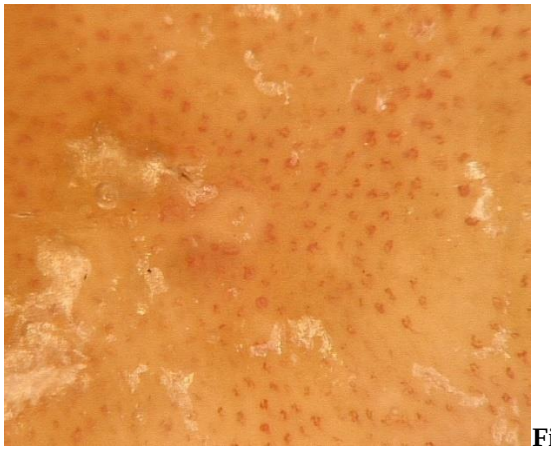
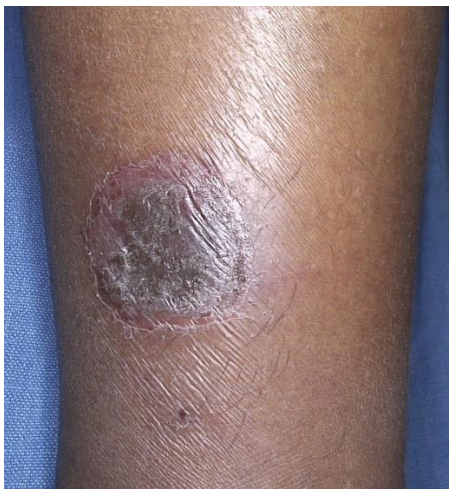


Fig P:Plaque psoriasis dermoscopy with white scales (40X)



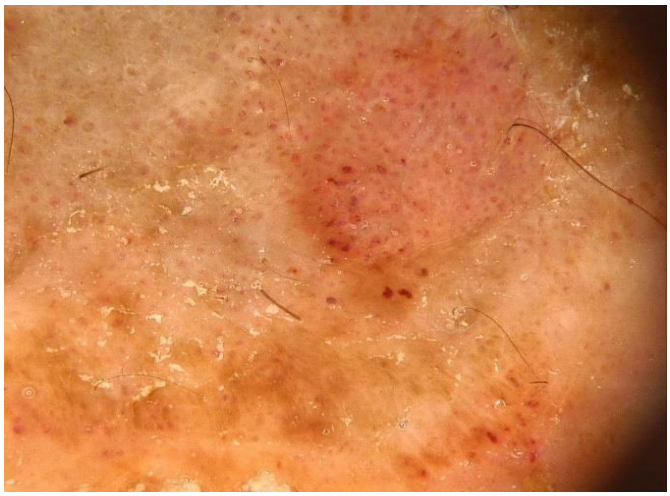


Fig. Q: Discoid eczema and dermoscopic image showing irregular dotted vessels (40X)

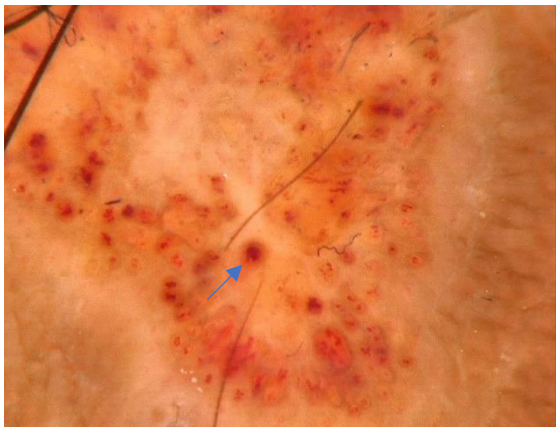


Fig. R: Dermoscopic image of discoid eczema showing red globules (blue arrow) (60X)

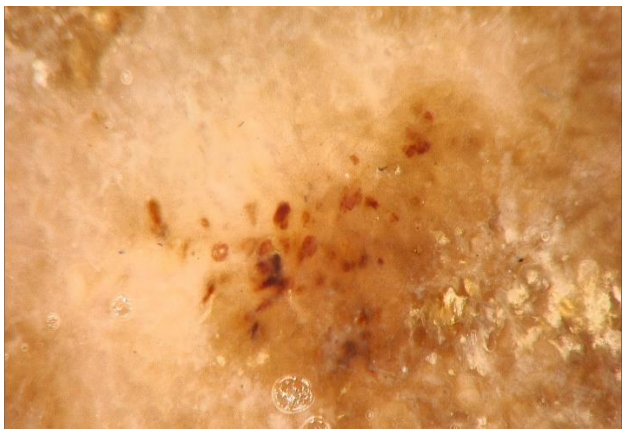


Fig. S: Dermoscopic image of discoid eczema showing yellow crusts and scales (20X)

DISCUSSION

1. DEMOGRAPHIC PROFILE

1.1 AGE

The median age at presentation of patients with mycosis fungoides in our study was 42.5 years. This was comparable to various other studies which are mentioned in Table 18. The youngest patient was 18 years of age and oldest patient was 72 years of age which was similar to the study by Bilgic et al. in which the minimum age was 19 years and maximum age was 68 years (10). The maximum number of patients belonged to the fourth decade (40-50 years) which was seen in the study by Larocca et al. as well (1). The median duration of disease before diagnosis was 48 months (IQR-34.5,129) with a minimum of 3 months and maximum of 180 months. This delay in diagnosis could be due to multiple factors, including the lack of awareness of skin cancers in India, non-specificity of initial skin lesions and lack of advanced health care facilities. A comparable data was recorded by Amorim et al. where the disease duration was 51.1 ± 63.0 months ranging from 2 months to 360 months (6) but this was conflicting with the data by Bilgic et al. in which the median disease duration was much lower which was 7.5 months ranging 1 month to 84 months (10).

Among the plaque psoriasis group, the median age at presentation in our study was 42.5 years with the ages ranging from 18 years- 80 years of age with the majority of patients in the fourth decade of life. However, the literature shows a bimodal age distribution where the initial presentation occurs at 18-39 years and the second peak at 50-69 years of age (22,55–58).

The median age at presentation of patients with discoid eczema in our study was 38.5 years with ages ranging from 18 years- 81 years and most of the patients who presented were in the third decade of life. Similar findings were seen in a study by Chougule et al. where the mean age was 40.5 years (59) while in atopic eczema, 45% cases begin in first 6 months of life, 60% by first year and 85% by 5 years while adult-onset atopic eczema can develop any time during life (23).

1.2 GENDER DISTRIBUTION

The gender distribution in our study compared with other studies is given in Table 18. In our study, among patients with mycosis fungoides, there was a male preponderance (75% males and 25% females) with a male: female ratio of 3:1. Similarly, male preponderance was seen in majority of other studies. In contrast to our study, a female preponderance was seen in the study by Bilgic et al. and Ozturk et al. in which the male: female ratio was 2:3 and 7:10 respectively (10,13).

In the plaque psoriasis and discoid eczema group of patients, there was a male predominance with 72.2% and 27.8% females with a male: female ratio of 2.6:1 in both. In contrast to our study, majority of the studies showed no differences in frequency of psoriasis between genders, however there were a few case reports where there was a female predominance (22,55,60,61).

In discoid eczema, there was contradicting data in literature compared to our study where there was a slight female preponderance (23,59).

Table 18: Overall demographic profile of mycosis fungoides patients in our study compared with available literature

Studies cited	Study period	Study design	Population	Mean age (years)	Male: Female ratio
Lallas at al. (n=32)(11)	January-August 2011	R	Italian	57.2	2.1:1
Bilgic et al. (n=20)(10)	2017- 2018	R	Turkish	46.5	3:2
Xu et al. (n=31) (12)	May 2013-January 2015	R	Chinese	35.6	1.2:1
Ozturk et al. (n=17)(13)	2017	P	Turkish	62 ± 12.4	0.7:1
Ghahramani et al. (n=15)(2)	2014- 2015	P	American	61	-
Sidiropoulou et al. (n=636)(62)	Till 2018	R	Greek	60.2 ± 16.6	1.9:1
Imam et al. (n=2273) (8)	2005-2008	R	American	Whites-63 Blacks-53	2:1
Amorim et al. (n=102)(6)	2000-2015	R	Brazil	55.2 ±15.9	1.2:1
Desai et al. (n=393)(9)	1998-2013	R	American	53.7 ± 16.5	1.1:1
Khader et al. (n=35)(16)	2010-2015	P	Indian	52.66	2.5:1
Amirtham et al. (n=37) (17)	2006-2016	R	Indian	41	1.8:1
Doshi B R et al. (n=31)(63)	2004-2008	R	Indian	31	1.76:1

Present study (n=12)	2020-2021	P-Cross-sectional	Indian	40.6 ± 12.8	3:1

(P-Prospective, R-Retrospective)

1.3 LOCATION OF RESIDENCE

Among mycosis fungoides patients, majority of patients belonged to an urban area (58.3%). Similarly, in plaque psoriasis as well as discoid eczema patients, majority of patients belonged to an urban set up (55.6% in plaque psoriasis and 83.3% in discoid eczema). This data is consistent with the concept that people living in urban areas had more access to health care facilities compared to people living in rural areas.

There were no comparable data in any other studies with regard to location of residence.

1.4 GEOGRAPHICAL DISTRIBUTION OF PATIENTS

Among mycosis fungoides patients, majority of patients were from Tamil Nadu (41.7%). As our centre was located in South India, this explains the majority population hailing from South Indian states accessing our centre and following up in the same hospital.

2. CLINICAL PROFILE

2.1 MYCOSIS FUNGOIDES

2.11 CLINICAL VARIANTS IN MYCOSIS FUNGOIDES

In our study, the majority presented as classical mycosis fungoides as in the literature. The other clinical variants of mycosis fungoides seen in this study included hypopigmented mycosis fungoides (25%), poikilodermatous mycosis fungoides

(16.7%), erythrodermic mycosis fungoides (8.3%) and Sezary syndrome (8.3%) which was higher than what is seen in other studies. According to literature, hypopigmented mycosis fungoides accounts for 3% of mycosis fungoides cases in adults, poikilodermatous mycosis fungoides accounts for 11% of all mycosis fungoides cases while Sezary syndrome makes 3% of all cutaneous lymphomas (64,65).

2.12 CLINICAL FEATURES OF MYCOSIS FUNGOIDES

Our clinical findings corroborate with the clinical profile of mycosis fungoides patients in literature. In our study, among the 36 lesions studied in the mycosis fungoides group, majority of the patients presented as either patch or plaque lesions. There were 2 patients each who presented with nodules and tumors. The extremities were predominantly involved followed by trunk while 2 patients were in erythroderma, of which one patient had Sezary syndrome. Hypopigmented and poikilodermatous mycosis fungoides also showed a similar distribution and the clinical findings were similar as shown in various studies (45,66,67). The lesions showed a chronic progressive evolution of lesions with gradual increase in size and extent of lesions over a long period of time. Significant loss of weight was noted in the patient with Sezary syndrome possibly due to the haematological dissemination in Sezary syndrome. Significant lymphadenopathy was present in 33.3% while none of the patients had hepatomegaly or splenomegaly while Amorim et al. had 6.8% patients with lymphadenopathy and 100% patients had hepatosplenomegaly (6).

a) Sun-exposed and non-sun exposed lesions

The majority of lesions, 83.3% were present on non- sun exposed areas with only 16.7% present on sun exposed areas which was similar to the findings seen in Amorim et al. (97.1%-non-sun exposed and 2.9 %-sun exposed areas) (6) and Pimpinelli et al. (29) where the classical presentation was seen along the bathing trunk distribution over non sun-exposed areas.

b) Body surface area (BSA)

Majority of patients (91.7%) had BSA involvement of >10% which was higher compared to the study by Amorim et al where there were 46.1% with BSA <10%(6).

2.13. STAGING OF MYCOSIS FUNGOIDES

The stage in majority of mycosis fungoides patients in our study was Stage IB (41.7%) followed by Stage IIA and IIB (16.7%) as majority of patients were having early mycosis fungoides. However, Bilgic et al. had the majority of patients who belonged to Stage IA (60%) followed by Stage IB (35%) and Stage IIA (5%)(10).

2.2 PLAQUE PSORIASIS

2.21 CLINICAL FEATURES

Among the plaque psoriasis patients, all clinical features were consistent with available literature on the clinical presentation of plaque psoriasis, which consisted of itchy erythematous scaly papules and plaques over extensor aspects of extremities and trunk (22,56).

More than half of the patients (61.1%) had BSA involvement of >10% which was comparable to Bilgic et al. (56% with BSA >10%).

2.3 DISCOID ECZEMA

2.31 CLINICAL FEATURES

Among patients with discoid eczema, all the patients had clinical features comparable to data in literature where the lesions were intensely pruritic erythematous papules or plaques with serous exudate present predominantly over extremities in case of classical discoid eczema while there was a flexural predilection in case of atopic eczema (23). There were 27.8% patients who had seasonal exacerbation of lesions. There were 38.9% who had a history of atopy and 22.2% with a positive family history of atopy. This was comparable to the data by Chougule et al. (59). The majority of patients (88.9%) had BSA involvement <10%.

3. HISTOPATHOLOGY AND IMMUNOHISTOCHEMISTRY OF MYCOSIS FUNGOIDES

The histopathological features found in all patients included atypical irregular lymphoid cells within the epidermis, lymphocytes disposed as solitary units and aligned in the basal layer of the epidermis and lymphohistiocytic infiltrate surrounding the vessels which was consistent with the available literature by Errichetti, Pimpinelli, Ghahramani, Bilgic, Ozturk and Xu et al. (2,10,12,13,29,39).

In all the cases, the diagnosis was further corroborated by immunohistochemistry showing positive CD3, CD4 and negative CD7 in all patients with mycosis fungoides as seen in studies by Lallas and Xu et al. (11,12). Hypopigmented mycosis fungoides

were classically found to have a CD8 predominance as seen in various studies (45,66,68–70). The hypopigmentation in hypopigmented mycosis fungoides was thought to be caused by CD8 cytotoxic T-cells damaging the melanocytes (36).

4. DERMOSCOPY

The dermoscopic features in our study were broadly categorised into vascular structures, scale characteristics, colour and other dermoscopic findings.

4.1 MYCOSIS FUNGOIDES

4.11 VASCULAR STRUCTURES IN MYCOSIS FUNGOIDES

In our study, the most common vascular structure observed on lesional dermoscopy was fine short linear vessels (61.1%) followed by dotted vessels (55.6%). Similarly, there were multiple studies where fine short linear vessels and dotted vessels were found to be the most common vascular finding. The studies where there were higher percentage of patients with the above findings compared to our study included Ghahramani et al., Lallas et al., Xu et al. and Ozturk et al. (2,11–13). In contrast to the above literature, Bilgic et al. had only 35% with dotted vessels and none with fine short linear vessels (10).

In our study, Y-shaped arborising vessels (30.6%) and red globules (27.8%) were seen in a small percentage of patients which was similar to the study by Ozturk et al. (13). The glomerular vessels were seen in 33.3% patients which was not seen in any other studies.

Spermatozoa-like structures as well as hairpin vessels were seen in 25% each of the lesions in our study. Other studies which showed a higher incidence of spermatozoa-like structures include Ghahramani et al. (66%), Xu et al (74.2%) and Lallas et al. (50%) while Ozturk et al. (29.4%) was comparable to our study (2,11–13). Hairpin vessels were seen only in 9.7% in the study by Xu et al. (12).

The vessel arrangement seen in majority in our study was clustered (41.7%) and patchy (38.8%). This was in contradiction with the available literature:- Xu et al. where the most common vessel arrangement seen was regular (67.7%) (12) and Bilgic et al. where the commonest vessel arrangement observed was patchy (80%) (10).

4.12 SCALE CHARACTERISTICS IN MYCOSIS FUNGOIDES

According to our findings, the most common scale seen was white scales (75%). Other literature which shows a similar finding include Bilgic et al., Ozturk et al, and Ghahramani et al. (2,10,13). However, there were fewer patients with white scales compared to our study seen in Lallas et al. (18.8%) and Xu et al. (3.2%) (2,11,12). Yellow scales were seen only in 22.2% in our study while Bilgic et al. had a lesser incidence (5%) (10).

In the present study, the scale distribution was patchy in majority (72.2%) which was similar to Bilgic et al. (36.6%) (10). Yellow crusts in mycosis fungoides patients were seen in 8.3% in our study, which was not seen in any other studies.

4.13 BACKGROUND COLOURS IN MYCOSIS FUNGOIDES

In our study, the background colour was brown in the majority of lesions (55.6%). Brown background was not seen among mycosis fungoides lesions in any literature. Ghahramani et al. and Xu et al. had maximum patients showing dull red background (2,12) while Bilgic et al. had majority of patients showing light red background (45%). Yellow background was seen only in the study by Bilgic et al. (10).

In our study, regular appearing white structureless areas were seen in 58.3% while it was seen in all the cases in Bilgic et al. and 35.2% in Ozturk et al. (10,13). In our study, orange-yellow patchy areas were found comparatively in lesser number of patients (63.9%) while it was seen in higher percentage of patients in Ghahramani et al. (100%), Lallas et al. (90.6%), Xu et al. (90.3%) and Ozturk et al. (88.2%) and was lower in Bilgic et al. (35%) (2,10–13).

4.14 OTHER DERMOSCOPIC FINDINGS IN MYCOSIS FUNGOIDES

In our study, perifollicular accentuation and comedo-like openings were seen in only 8.3%. In Ghahramani et al., perifollicular accentuation was seen in 100% patients with folliculotropic mycosis fungoides and comedo-like openings were seen in 60% patients with folliculotropic mycosis fungoides. Our study did not have any patients with folliculotropic mycosis fungoides. Crystalline structures were not seen in our study, but 33% cases showed the same in Ghahramani et al. (2).

Table 19: Dermoscopic findings of mycosis fungoides (MF) in available literature and the present study

Reported dermoscopic findings in MF	**STUDIES CITED**					
	Ghahramani et al. (2)	**Lallas et al.** (11)	**Xu et al.** (12)	**Ozturk et al.** (13)	**Bilgic et al.** (10)	**Present study**
A. VASCULAR STRUCTURES						
1. Dotted vessels	16% (patch) 100%(plaque)	56.3%	67.7%	29.4%	35%	55.6%
2. Dotted + linear	-	-	-	-	65%	-
3. Fine short linear vessels	83% (patch)	93.8%	90.3%	82.3%	-	61.1%
4. Red globules	-	-	-	-	-	27.8%
5. Glomerular vessels	-	-	-	-	-	33.3%
6. Spermatozoa -like structures	66%	50%	74.2%	29.4%	-	25%
7. Rings/hairpin-like vessels	-	-	9.7%	-	-	25%
8.Y-shaped arborising vessels	-	-	-	29.4%	-	30.6%
9. Vessel arrangement						
a) Patchy	-	-	25.8%	-	80%	38.9%
b) Regular	-	-	67.7%	-	15%	-
c) Cluster	-	-	6.5%	-	5%	41.7%
B. SCALE CHARACTERISTICS						
10. Scale colour						
a) White scales	50% (patch) 100%(plaque)	18.8%	3.2%	70.5%	80%	75%
b) Yellow-white scales	-	-	-	-	5%	22.2%
11. Scale distribution						
a) Patchy	-	-	-	-	36.6%	72.2%
b) Peripheral	-	-	-	-	3.3%	-
c) Diffuse	-	-	-	-	16.6%	2.8%

12. Yellow crusts	-	-	-	-	-	8.3%
C. BACKGROUND COLOURS						
13. Background colour						
a) Light red	16% (patch)	-	9.7%	-	45%	27.8%
b) Dull red	50% (patch) 100%(plaque)	-	83.9%	-	10%	16.7%
c) Brown	-	-	-	-	-	55.6%
d) Yellow	-	-	-	-	10%	-
14. Structureless patches	100%	-	-	35.2%	-	58.3%
15. Orange-yellow patchy areas	100%(plaque)	90.6%	90.3%	88.2%	35%	63.8%
D. OTHER DERMOSCOPIC FINDINGS						
16.Perifollicular accentuation	100% (FMF)	-	-	-	-	8.3%
17.Comedo-like openings	60% (FMF)	-	-	-	-	8.3%
18. Crystalline structures	33% (patch)	-	-	-	-	-

4.2 COMPARISON OF DERMOSCOPIC FEATURES OF MYCOSIS FUNGOIDES WITH PLAQUE PSORIASIS AND DISCOID ECZEMA

4.21 VASCULAR STRUCTURES

In our study, fine short linear vessels were seen in a higher proportion of patients with mycosis fungoides (61.1%) compared to plaque psoriasis (20.4%) and discoid eczema (38.9%). Likewise, other studies showed a higher incidence of fine short linear vessels in mycosis fungoides patients when compared to plaque psoriasis and discoid eczema such as Ghahramani et al., Lallas et al. (2,40), Xu et al. and Ozturk et al. (2,11–13). So, we can consider this to be a distinguishing feature of mycosis fungoides. As described

in other studies, the most common structure seen in mycosis fungoides were fine short linear vessels.

According to our findings, dotted vessels were seen only in approximately half of the patients (55.6%) with mycosis fungoides while the majority of lesions of plaque psoriasis (98.2%) and discoid eczema (90.7%) showed dotted vessels. Similar findings were seen in Bilgic et al. (10), Xu et al. (12), Lallas et al. (40), Ozturk et al. (13) and Ghahramani et al. (2). Hence, the presence of dotted vessels was more in favor of plaque psoriasis or discoid eczema than mycosis fungoides.

In our study, red globules were found in a lesser number of patients with mycosis fungoides (27.8%) compared to plaque psoriasis (74.1%) and discoid eczema (51.9%). Red globular ring is a less common but specific finding in plaque psoriasis, hence this finding was consistent with literature (39). Similar finding was observed in Ozturk et al. with a lower incidence of globules in mycosis fungoides (5.8%) (13).

Glomerular vessels were seen in a smaller proportion of patients with mycosis fungoides (33.3%) and discoid eczema (27.8%) compared to plaque psoriasis (57.4%) in our study. Glomerular vessels were classically described in 65% of psoriasis patients in a study by Kim et al. (32,71). None of the available literature showed glomerular vessels in mycosis fungoides patients.

Corroborating with the literature, our results showed that spermatozoa-like structures were observed exclusively in mycosis fungoides although it was found only in 25% lesions while neither plaque psoriasis or discoid eczema had a similar finding. Similarly in studies by Xu et al. and Ghahramani et al., only mycosis fungoides cases had

spermatozoa-like structures (2,12). However, Ozturk et al. had both mycosis fungoides (29.4%) and plaque psoriasis (5.8%) showing the same feature (13).

In our study, the vessel arrangement seen in majority of mycosis fungoides patients were clustered (41.7%) and patchy (38.9%) while plaque psoriasis had majority with regular arrangement (94.4%) and discoid eczema had majority with patchy arrangement (68.5%).

In contrast to the findings in our study, other studies such as Bilgic et al. had majority lesions showing patchy vessel arrangement in mycosis fungoides (80%) while in plaque psoriasis, similar to our study, the majority was found to have regular arrangement (76%) and discoid eczema had patchy distribution (70%). In contrast to our study, Xu et al. had majority with regular arrangement (67.7%) in mycosis fungoides while in plaque psoriasis, majority had regular arrangement (85.3%) and discoid eczema had patchy arrangement in majority (51.1%) (10,12).

In our study, we found that there was a radial arrangement of vascular structures surrounding the lesion which was seen in 25% patients of mycosis fungoides. However, such a finding was not reported in other literature.

Table 20: Vascular structures in dermoscopy of mycosis fungoides (MF) compared to plaque psoriasis and discoid eczema in available literature and the present study

Reported dermoscopic findings in MF	**STUDIES CITED**					
	Ghahramani et al. (2)	**Lallas et al.** (11)	**Xu et al.** (12)	**Ozturk et al.** (13)	**Bilgic et al.** (10)	**Present study**
A. VASCULAR STRUCTURES						
1. Dotted vessels						
Mycosis fungoides	16%(patch) 100%(plaque)	56.3%	67.7%	29.4%	35%	55.6%
Plaque psoriasis	100%	-	97.1%	94.1%	96%	98.2%
Discoid eczema	86%	85.7%	97.2%	-	100%	90.7%
2. Dotted + linear						
Mycosis fungoides	-	-	-	-	65%	-
Plaque psoriasis	-	-	-	-	4%	-
Discoid eczema	-	-	-	-	-	-
3. Fine short linear vessels						
Mycosis fungoides	83% (patch)	93.8%	90.3%	82.3%	-	61.1%
Plaque psoriasis	-	-	14.7%	11.7%	-	20.4%
Discoid eczema	3%	2.9%	-	-	-	38.9%
4. Red globules						
Mycosis fungoides	-	-	-	5.8%	-	27.8%
Plaque psoriasis	-	-	-	70.5%	-	74.1%
Discoid eczema	-	-	-	-	-	51.9%
5. Glomerular vessels						
Mycosis fungoides	-	-	-	-	-	33.3%
Plaque psoriasis	-	-	-	-	-	57.4%
Discoid eczema	-	-	-	-	-	27.8%
6. Spermatozoa-like structures						
Mycosis fungoides	66%	50%	74.2%	29.4%	-	25%
Plaque psoriasis	-	-	-	-	-	-
Discoid eczema	-	-	-	-	-	-
7. Rings/hairpin-like vessels						
Mycosis fungoides	-	-	9.7%	-	-	25%
Plaque psoriasis	-	-	44.1%	-	10%	22.2%
Discoid eczema	-	-	8.3%	-	-	5.6%
8. Y-shaped arborising vessels						
Mycosis fungoides	-	-	-	29.4%	-	30.6%
Plaque psoriasis	-	-	-	5.8%	-	-

Discoid eczema	-	-	-	-	-	1.9%
9. Vessel arrangement						
a) Patchy						
Mycosis fungoides	-	-	25.8%	-	80%	38.9%
Plaque psoriasis	-	-	4%	-	12%	1.9%
Discoid eczema	-	-	51.1%	-	70%	68.5%
b) Regular						
Mycosis fungoides	-	-	67.7%	-	15%	-
Plaque psoriasis	-	-	15%	-	76%	94.4%
Discoid eczema	-	-	15%	-	-	-
c) Clustered						
Mycosis fungoides	-	-	6.5%	-	5%	41.7%
Plaque psoriasis	-	-	1%	-	2%	3.7%
Discoid eczema	-	-	6.5%	-	-	25.9%

4.22 SCALE CHARACTERISTICS

According to our findings, white scales were seen in three fourths of mycosis fungoides patients while it was seen in all lesions in plaque psoriasis and discoid eczema patients. Similar findings were observed by Bilgic et al. and Ghahramani et al. (2,10). However, Xu et al. and Lallas et al. had a lesser incidence of white scales among mycosis fungoides lesions in their study (11,12,40).

Yellow/ yellow-white scales were seen in only a minority of patients with mycosis fungoides (22.2%) compared to plaque psoriasis lesions (72.2%) and discoid eczema (64.8%). This was similar to the findings of Bilgic et al., Ghahramani et al., Xu et al. and Lallas et al. who also found higher incidence of yellow scales in eczema group of population when compared to mycosis fungoides and plaque psoriasis (2,10,12,40).

In our study, the scale distribution seen in the majority of mycosis fungoides lesions was patchy (72.2%). Plaque psoriasis had majority of diffuse scale distribution (51.9%) and discoid eczema had patchy distribution in majority (87%), consistent with already

available literature (32,39). Similar to our study, Bilgic et al. reported that mycosis fungoides patients had a majority patchy distribution (36.6%) while plaque psoriasis (54%) and nummular dermatitis (95%) had patchy distribution in the majority (10).

Table 21: Scale characteristics in dermoscopy of mycosis fungoides (MF) compared to plaque psoriasis and discoid eczema in available literature and the present study

Reported dermoscopic findings in MF	**STUDIES CITED**					
	Ghahramani et al. (2)	**Lallas et al.** (11)	**Xu et al.** (12)	**Ozturk et al.** (13)	**Bilgic et al.** (10)	**Present study**
B. SCALE CHARACTERISTICS						
10. Scale colour						
a) White scales						
Mycosis fungoides	50% (patch) 100%(plaque)	18.8%	3.2%	70.5%	80%	75%
Plaque psoriasis	70%	-	79.6%	5.8%	76%	100%
Discoid eczema	66%	65.7%	16.7%	-	20%	100%
b) Yellow-white scales						
Mycosis fungoides	-	-	-	-	5%	22.2%
Plaque psoriasis	-	-	11.8%	-	24%	72.2%
Discoid eczema	57%	57.1%	63.9%	-	80%	64.8%
11. Scale distribution						
a) Patchy						
Mycosis fungoides	-	-	-	-	36.6%	72.2%
Plaque psoriasis	-	-	-	-	54%	38.9%
Discoid eczema	-	-	-	-	95%	87%
b) Peripheral						
Mycosis fungoides	-	-	-	-	3.3%	-
Plaque psoriasis	-	-	-	-	-	9.3%
Discoid eczema	-	-	-	-	-	12.9%
c) Diffuse						
Mycosis fungoides	-	-	-	-	16.6%	2.8%
Plaque psoriasis	-	-	-	-	44%	51.9%
Discoid eczema	-	-	-	-	-	-

12. Yellow crusts						
Mycosis fungoides	-	-	-	-	-	8.3%
Plaque psoriasis	-	-	-	-	-	31.5%
Discoid eczema	-	-	-	-	-	61.1%

4.23 BACKGROUND COLOURS

In our study, the background colour seen in the majority of mycosis fungoides lesions was brown (55.6%). Plaque psoriasis had light red background in the majority (90.7%) while discoid eczema had 51.9% with dull red background and brown in 46.3%. In the study by Bilgic et al., the majority of mycosis fungoides lesions (45%), plaque psoriasis (40%) and eczema (50%) were found to have a light red background while brown background was not observed by them (10). In Xu et al., mycosis fungoides (83.9%) and discoid eczema (66.7%) had a predominant dull red background while plaque psoriasis had a predominant light red background (70.6%) (12). Ghahramani et al. had dull red background in majority of mycosis fungoides patients and plaque psoriasis patients while dermatitis had dull red in majority (12).Thus, the available literature showed comparable findings of background colour in cases of plaque psoriasis and discoid eczema while findings in mycosis fungoides were different.

Regular appearing white structureless areas were seen in more than half of the patients of mycosis fungoides (58.3%) in our study as seen in Ghahramani et al. where it was seen only in mycosis fungoides (2). However, in Ozturk et al., it was seen in mycosis fungoides patients (35.2%) as well as psoriasis patients (5.8%) (13).

Orange-yellow patchy areas were another finding seen exclusively in mycosis fungoides lesions in our study (63.8%). Similarly, it was an exclusive finding among

mycosis fungoides patients in Ghahramani et al. and Lallas et al. (2,11). Although Bilgic et al., Xu et al. and Ozturk et al. also showed orange yellow patchy areas, it was not an exclusive finding (10,12,13).

Table 22: Background colour in dermoscopy of mycosis fungoides (MF) compared to plaque psoriasis and discoid eczema in available literature and the present study

Reported dermoscopic findings in MF	**STUDIES CITED**					
	Ghahramani et al. (2)	**Lallas et al.** (11)	**Xu et al.** (12)	**Ozturk et al.** (13)	**Bilgic et al.** (10)	**Present study**
C. BACKGROUND COLOURS						
13. Background colour						
a) Light red						
Mycosis fungoides	16% (patch)	-	9.7%	-	45%	27.8%
Plaque psoriasis	41%	-	70.6%	-	40%	90.7%
Discoid eczema	15%	-	25%	-	50%	1.9%
b) Dull red						
Mycosis fungoides	50% (patch) 100%(plaque)	-	83.9%	-	10%	16.7%
Plaque psoriasis	58%	-	23.5%	-	38%	3.7%
Discoid eczema	66%	-	66.7%	-	40%	51.9%
c) Brown						
Mycosis fungoides	-	-	-	-	-	55.6%
Plaque psoriasis	-	-	-	-	-	5.6%
Discoid eczema	-	-	-	-	-	46.3%
d) Yellow						
Mycosis fungoides	-	-	-	-	10%	-
Plaque psoriasis	-	-	-	-	20%	-
Discoid eczema	-	-	-	-	5%	-
14. Structureless patches						
Mycosis fungoides	100%	-	-	35.2%	-	58.3%
Plaque psoriasis	-	-	-	-	-	-
Discoid eczema	-	-	-	-	-	-
15. Orange- yellow patchy areas						

Mycosis fungoides	100%(plaque)	90.6%	90.3%	88.2%	35%	63.8%
Plaque psoriasis	-	-	8.8%	11.7%	5%	-
Discoid eczema	-	-	8.3%	-	5%	-

4.24 OTHER DERMOSCOPIC FINDINGS

In our study, perifollicular accentuation and comedo-like openings were seen exclusively in 8.3% of mycosis fungoides lesions. This dermoscopic finding was found only in folliculotropic mycosis fungoides in available literature (2).

Table 23: Other dermoscopic findings in mycosis fungoides (MF) compared to plaque psoriasis and discoid eczema in available literature and the present study

Reported dermoscopic findings in MF	**STUDIES CITED**					
	Ghahramani et al. (2)	**Lallas et al.** (11)	**Xu et al.** (12)	**Ozturk et al.** (13)	**Bilgic et al.** (10)	**Present study**
D. OTHER DERMOSCOPIC FINDINGS						
16. Perifollicular accentuation						
Mycosis fungoides	100% (FMF)	-	-	-	-	8.3%
Plaque psoriasis	-	-	-	-	-	-
Discoid eczema	-	-	-	-	-	-
17. Comedo-like openings						
Mycosis fungoides	60% (FMF)	-	-	-	-	8.3%
Plaque psoriasis	-	-	-	-	-	-
Discoid eczema	-	-	-	-	-	-
18. Crystalline structures						
Mycosis fungoides	33% (patch)	-	-	-	-	-
Plaque psoriasis	-	-	-	-	-	-
Discoid eczema	-	-	-	-	-	-

5. DERMATOLOGICAL LIFE QUALITY INDEX (DLQI)

Dermatological life quality index (DLQI) score was calculated for all patients with mycosis fungoides. In our study, the majority (33.3%) reported a small effect on their quality of life due to mycosis fungoides while 25% had no effect on quality of life. This may be a reflection of the resilience of the patient population with chronic illness.

The mean dermatology life quality index in our study was 8.42 ± 8.709 which showed that mycosis fungoides had an overall moderate impact on the quality of life of patients in our study.

CONCLUSION

The salient findings observed in our study were:

1. The mean age at presentation of patients with mycosis fungoides in our study was 40.6 ± 12.8 years. The maximum number of people were in their fourth decade of life.

2. In mycosis fungoides, there was a male predominance with a male: female ratio of 3:1.

3. Most of the mycosis fungoides lesions (n=36) had either plaque or patch stage while 1 patient was in erythroderma and 1 had Sezary syndrome.

4. The unusual clinical variants of mycosis fungoides seen in our study were hypopigmented mycosis fungoides (n=3) and poikilodermatous mycosis fungoides (n=2).

5. Majority of mycosis fungoides patients (83.3%) presented with lesions on non-sun exposed areas and only 16.7% were present on sun exposed areas.

6. Majority of the patients were in early stage of mycosis fungoides with 41.7% in Stage IB and 16.7% in Stage IIA and IIB.

7. The most common dermoscopic finding among vascular structures seen in mycosis fungoides lesions was fine short linear vessels seen in 22 lesions (61.1%) followed by dotted vessels seen in 20 lesions (55.6%) with clustered distribution in 41.7% and patchy distribution in 38.9%.

8. Majority of mycosis fungoides lesions (75%) showed white scales while yellow scales were seen only in 22.2% with patchy distribution in majority of lesions (72.2%) and diffuse arrangement in 2.8%.

9. Regular appearing white structureless areas were seen in 58.3% of mycosis fungoides lesions and orange-yellow patchy areas were found in 63.8% lesions.

10. The background colour seen in majority of the lesions of mycosis fungoides (55.6%) was brown.

11. The unique dermoscopic features seen exclusively in mycosis fungoides included spermatozoa-like structures (25%), regular appearing white structureless areas (58.3%) and orange-yellow patchy areas (63.8%).

12. The characteristic findings seen on dermoscopy which were statistically significant for mycosis fungoides in comparison to plaque psoriasis and discoid eczema included: a) Vascular structures: Fine short linear vessels ($p < 0.001$), Y-shaped arborising vessels ($p < 0.001$) and clustered vessel arrangement ($p < 0.001$), b) Scale characteristic: Patchy scale distribution ($p = 0.001$) and c) Background colour: Brown background ($p = 0.001$).

13. Dotted vessels were seen only in 55.6% of patients with mycosis fungoides while the lesions of plaques psoriasis and discoid eczema were typified by dotted vessels with 98.2% and 90.7% respectively.

14. The overall impact of mycosis fungoides on the quality of life as assessed by DLQI was moderate.

LIMITATIONS

1. Our study was limited by the lack of observer blinding.

2. Due to the rarity of the disease, the sample size of patients with mycosis fungoides was small.

3. We did not do a polarized dermoscopy of the lesions and hence may have missed some additional features.

RECOMMENDATIONS

1. Dermoscopy should be performed in all patients with suspected mycosis fungoides.

2. The specific dermoscopic features of mycosis fungoides and its comparison with its close mimics plaque psoriasis and discoid eczema in our population helps in early recognition, diagnosis and thus optimal management of mycosis fungoides.

3. Dermoscopy can be used as an adjunct in the clinical diagnosis of mycosis fungoides thereby saving the need for a diagnostic biopsy in certain scenarios.

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ABSTRACT

Title of abstract: A study on dermoscopy and quality of life of mycosis fungoides and comparison of dermoscopy of early mycosis fungoides with plaque psoriasis and discoid eczema.

Department: Department of Dermatology, Venereology and Leprosy Unit II

Name of candidate: Dr Surya Mary Mathew

Degree and subject: M.D. Dermatology, Venereology and Leprosy

Name of Guide: Dr Leni George

INTRODUCTION: Mycosis fungoides is the most common type of cutaneous T-cell lymphoma in which malignant skin-tropic memory T-lymphocytes reside primarily in infiltrated skin. It is often challenging to distinguish early mycosis fungoides clinically and pathologically from inflammatory processes of the skin. This study aims to survey the dermoscopic features of all stages of mycosis fungoides and compare the patch and plaque stages of mycosis fungoides with its mimics like plaque psoriasis and discoid eczema and to discern whether any patterns might potentially serve as specific sign and thus help in early diagnosis, treatment and prognosis of the disease.

OBJECTIVES: To study the dermoscopic features of all stages of mycosis fungoides and compare the features of patch and plaques stages of mycosis fungoides with that of plaque psoriasis and discoid eczema and assess the dermatological quality of life of patients with mycosis fungoides.

METHODS: In this cross-sectional observational study conducted over a period of 12 months in a tertiary care centre in South India, thirty-six lesions with an established diagnosis of mycosis fungoides were prospectively recruited and their dermoscopic features were studied. The patch and plaque stages of mycosis fungoides were compared with the dermoscopic features of plaque psoriasis and discoid eczema. The Dermatology life quality index scores of mycosis fungoides patients were calculated and recorded.

RESULTS: The most common dermoscopic finding among vascular structures seen in mycosis fungoides lesions was fine short linear vessels followed by dotted vessels. The most common scale characteristic seen was white scales and background colour was brown. Spermatozoa-like structures, regular appearing white structureless areas and orange-yellow patchy areas were observed only in mycosis fungoides lesions while neither plaque psoriasis or discoid eczema had a similar finding. Dotted vessels were seen only in half of patients with mycosis fungoides while the lesions of plaques psoriasis and discoid eczema were typified by dotted vessels. The overall impact of mycosis fungoides on the quality of life as assessed by dermatological life quality index was moderate.

CONCLUSION: The specific dermoscopic features of mycosis fungoides and its comparison with its close mimics plaque psoriasis and discoid eczema in our population helps in early recognition, diagnosis and thus optimal management of mycosis fungoides. Thus, dermoscopy can be used as an adjunct in the clinical diagnosis of mycosis fungoides thereby aiding in early diagnosis prior to confirmation with biopsy and distinguishing it from its clinical mimics.

Keywords: Mycosis fungoides, plaque psoriasis, discoid eczema, dermoscopy

ANNEXURE 1: IRB APPROVAL AND FUNDING LETTERS

OFFICE OF RESEARCH
INSTITUTIONAL REVIEW BOARD (IRB)
CHRISTIAN MEDICAL COLLEGE, VELLORE, INDIA

Dr. B.J. Prashantham, M.A., Dr. Min (clinical)
Director, Christian Counselling Center
Chairperson, Ethics Committee

Dr. Anna Benjamin Pulimood, MD., Ph.D.,
Chairperson, Research Committee, Principal

Dr. Suceena Alexander, MD., DM., FASN.,
Secretary, Ethics Committee, IRB
Additional Vice-Principal (Research)

November 18, 2020

Dr. Surya Mary Mathew,
PG registrar,
Department of DVL - 2,
Christian Medical College,
Vellore – 632 002.

Sub: Fluid Research Grant: New Proposal:
A study on dermoscopy and quality of life in mycosis fungoides (MF) and comparison of dermoscopy of early MF with plaque psoriasis(PP) and discoid eczema.
Dr. Surya Mary Mathew, Employment Number: 21426 PG Registrar, Dermatology Venereology and Leprosy- Unit II, Dr. Leni George, Employment Number: 20257 , Dermatology Venereology and Leprosy- Unit II, Dr. Susanne Pulimood, Employment number: 12410 Department of Dermatology Venereology and Leprosy- Unit II, Dr. Dincy Peter ,Employment number: 31034 , Dermatology Venereology and Leprosy- Unit II, Dr. Biju George Haematology, Dr Meera Thomas Employment number: 20116 Department of Pathology, Dr. Gauri Mahabal Employment number :33506 Department of Dermatology Venereology and Leprosy Unit–2, Dr. Priya Kuryan , Employment Number : 29036 Department of Dermatology Venereology and Leprosy Unit–2 , Mrs Grace Rebekah Employment number: 32070 Biostatistics.

Ref: IRB Min. No. 13456 [OBSERVE] dated 05.10.2020.

Dear Dr. Surya Mary Mathew,

The Institutional Review Board (**Blue**, Research and Ethics Committee) of the Christian Medical College, Vellore, reviewed and discussed your project titled "A study on dermoscopy and quality of life in mycosis fungoides (MF) and comparison of dermoscopy of early MF with plaque psoriasis(PP) and discoid eczema" on October 05, 2020.

Ethics Committee Blue, Office of Research, I Floor, Carman Block, Christian Medical College, Vellore, Tamil Nadu 632 002
Tel: 0416 – 2284294, 2284508 Fax: 0416 – 2262788 E-mail: research@cmcvellore.ac.in

Dr. B.J. Prashantham, M.A., Dr. Min (clinical)
Director, Christian Counselling Center
Chairperson, Ethics Committee

Dr. Anna Benjamin Pulimood, MD., Ph.D.,
Chairperson, Research Committee, Principal

Dr. Suceena Alexander, MD., DM., FASN.,
Secretary, Ethics Committee, IRB
Additional Vice-Principal (Research)

The Committee reviewed the following documents:

1) IRB Application Format
2) Proforma
3) Questionnaire
4) Patient information sheet and Consent Form (Tamil, English, Hindi, Bengali, Malayalam, Telugu)
5) Cvs. Of Drs. Susanne Pulimood, Leni George, Dincy Peter, Biju George, Meera Ranjan, Grace Rebekah.
6) No. of Documents 1 -5.

The following Institutional Review Board (Blue, Research & Ethics Committee) members were present at the meeting held on October 05, 2020 in the New IRB Room, Christian Medical College, Vellore 632 004.

Name	Qualification	Designation	Affiliation
Dr. B. J. Prashantham	MA (Counseling Psychology), MA(Theology), Dr. Min (Clinical Counselling)	Chairperson, Ethics Committee, IRB. Director, Christian Counseling Centre, Vellore	External, Social Scientist
Dr. Suceena Alexander	MD., DM., FASN	Secretary – (Ethics Committee), IRB, Addl. Vice Principal (Research), Professor of Nephrology, CMC, Vellore	Internal Clinician
Dr. Sathish Kumar	MD, DCH	Professor, Child Health, CMC, Vellore	Internal, Clinician
Ms. Grace Rebekha	M.Sc., (Biostatistics)	Lecturer, Biostatistics, CMC, Vellore	Internal, Statistician
Mr. C. Sampath	BSc, BL	Advocate, Vellore	External, Legal Expert
Mr. Samuel Abraham	MA, PGDBA, PGDPM, M. Phil,BL.	Sr. Legal Officer, Vellore	External Legal Expert
Rev. Rainard Pearson	BA., B. Th., M. Div.,	Sr. Chaplin, CMC, Vellore.	Internal, Social Scientist
Dr. Anuradha Rose	MBBS, MD, MHSC (Bioethics)	Associate Professor, Community Health, CMC, Vellore	Internal, Clinician

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Dr. Anna Benjamin Pulimood, MD., Ph.D.,
Chairperson, Research Committee, Principal

Dr. Suceena Alexander, MD., DM., FASN.,
Secretary, Ethics Committee, IRB
Additional Vice-Principal (Research)

Dr. Barney Isaac	DNB (Respiratory Diseases)	Associate Professor, Pulmonary Medicine, CMC, Vellore	Internal, Clinician
Mrs. Pattabiraman	BSc, DSSA	Social Worker, Vellore	External, Lay Person
Dr. Joe Varghese	MBBS, MD Biochemistry	Professor, Department of Biochemistry	Internal Clinician
Dr. Balu Krishna	MBBS MD DNB DMRT	Professor, Department of Radiotherapy, CMC Vellore	Internal Clinician
Dr. Rohin Mittal	MS , DNB	Professor, Department of General Surgery, CMC Vellore	Internal Clinician
Dr. Shyam Kumar NK	DMRD, DNB, FRCR, FRANZCR	Professor, Radiology, CMC, Vellore	Internal, Clinician
Dr. Santosh Varughese	MBBS, MD	Professor, Nephrology, CMC, Vellore	Internal, Clinician
Dr. HS. Asha	MBBS, DNB	Professor, Department of Endocrinology, CMC Vellore	Internal Clinician
Dr. Ekta Rai	MD, MRCA	Professor, Head of the Unit 5, Department of Anaesthesia, CMC, Vellore	Internal, Clinician
Dr. Rekha Pai	MSc, PhD	Associate Professor, Pathology, CMC, Vellore	Internal, Basic Medical Scientist
Dr. Winsely Rose	MD (Paed)	Professor, Paediatrics, CMC Vellore	Internal, Clinician
Dr. Premila Abraham	M.Sc. Ph.D	Professor, Department of Biochemistry, CMC, Vellore	Internal Clinician

We approve the project to be conducted as presented.

Kindly provide the total number of patients enrolled in your study and the total number of Withdrawals for the study entitled: "Assessment of Right and Left ventricular strain before and after Transcatheter Closure of Ostium Secundum Atrial Septal Defect(OS ASD) – A case-control study in Indian population" on a monthly basis. Please send copies of this to the Research Office (research@cmcvellore.ac.in).

Ethics Committee Blue, Office of Research, I Floor, Carman Block, Christian Medical College, Vellore, Tamil Nadu 632 002
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Secretary, Ethics Committee, IRB
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The Institutional Ethics Committee expects to be informed about the progress of the project, Any **adverse events** occurring in the course of the project, any **amendments in the protocol and the patient information / informed consent**. On completion of the study you are expected to submit a copy of the **final report**. Respective forms can be downloaded from the following link: http://172.16.1.136/Research/IRB_Policy.html in the CMC Intranet and in the CMC website link address: http://www.cmch-vellore.edu/static/research/Index.html.

Fluid Grant Allocation:
A sum of 1,38,380/- INR (Rupees One Lakh Thirty Eight Thousand Three Hundred and Eighty Only) will be granted for 11 Month.

Yours sincerely,

Dr. Suceena Alexander
Secretary (Ethics Committee)
Institutional Review Board

Suceena Alexander, MD.,DM.,FASN.
Secretary - (Ethics Committee)
Institutional Review Board
Christian Medical College,
Vellore - 632 002, Tamil Nadu, India.

IRB Min. No. 13456 [OBSERVE] dated 05.10.2020

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ANNEXURE 2: PATIENT INFORMATION SHEET

Patient information sheet- English

Study title: A study on dermoscopy and quality of life in mycosis fungoides (MF) and comparison of dermoscopy of early MF with plaque psoriasis(PP) and discoid eczema.

Study title (for lay public): To study the skin-surface features under magnification of patients with some skin diseases

Date: ____/____/_____

Principal investigator: Dr Surya Mary Mathew, Department of Dermatology, CMC Vellore.

We are inviting you to take part in a research study. Before you decide, it is important for you to understand why we are doing the research and what it will involve. Please read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you want more information. Take time to decide whether you wish to take part or not.

Purpose of research: Mycosis fungoides(MF) is a common type of skin cancer. It typically appears at an early stage as scaly lesions and thus is difficult to correctly identify as its appearance may closely resemble other skin diseases such as eczema and psoriasis. When MF is mistaken for psoriasis or eczema, it often delays biopsy examination and thus delays early identification and required treatment. We would like to look at the various findings that we could see through an instrument called a dermatoscope. A Dermatoscope (skin-surface microscope) is an instrument that is used to visualize skin under magnification. There are certain patterns that are seen on skin-surface microscopy that are specific to MF, psoriasis and eczema which helps in early identification of each of these conditions. We want to do a study on this as there is inadequate research on this subject. This study will help in recognizing the specific patterns seen on skin surface microscopy in early MF, psoriasis and eczema and also help in its comparison with each other. Thus our study will be useful for making an early recognition and adequate management of MF. This study will also help in finding out how MF affects the quality of life of the people who are affected with it.

Expected duration of the Subject's participation: You will be examined by the doctor only once in the study period.

Description of the procedures: The doctor will do the detailed skin examination and will note down the information in a special form. Examination of skin in different magnifications will be done and photographs will be taken using a special instrument called Video dermatoscope. A skin biopsy will be done when there is clinical suspicion of MF. We will also ask specific questions about how the disease affects quality of life of the patient. At the end of the study, we will analyze all the data obtained so far and correlate it with previously done studies.

Risks or discomforts to the Subject:
Nil

Benefits to the Subject: Dermoscopic findings help in the clinical diagnosis of MF, psoriasis and eczema before doing a biopsy and thus assist us in making early diagnoses and make appropriate plan for further treatment. It also helps in evaluating how MF affects their quality of life.

Benefits to others: This study will help us get a better understanding of various dermoscopic features of MF, psoriasis and eczema in patients and how MF affects their quality of life .The data we collect will be useful for early recognition and treatment of MF.

Confidentiality: Your name and address will not be revealed at any point of time. All information that is collected about you during the course of the research will be kept strictly confidential unless we are required by law to share any information.

Participation: It is up to you to decide whether to take part or not. You are still free to withdraw from the study at any time, without giving any reason. A decision to withdraw, or a decision not to take part, will not affect the standard of care you receive.

Contact person: Dr Surya Mary Mathew
Post Graduate Resident,
Department of Dermatology,
Christian Medical College,
Vellore, Tamil Nadu
Mobile- 8428775792
Office-04162282054

Patient information sheet- Hindi

मरीज़सूचना पत्र

अध्ययन का शीर्षक:

माइकोसिसफन्गोएडस (एमएफ) में डर्मोस्कोपी और जीवन की गुणवत्ता पर एक अध्ययन और प्लाक सोरायसिस (पीपी) और डिसॉइड एक्जिमा के साथ शुरुआती एमएफ की डर्मोस्कोपी की तुलना।

अध्ययन का शीर्षक (आसान भाषा में) :कुछ त्वचा रोगों वाले रोगियों की भव्यता के तहत त्वचा की सतह की विशेषताओं का अध्ययन करना

तारीख: ___/___/_____

प्रमुख अन्वेषक: डॉ. सूर्या मेरी मैथ्यू, त्वचा विज्ञान विभाग, सी.एम.सी वेल्लोर।

हम आपको एक शोध अध्ययन में भाग लेने के लिए आमंत्रित कर रहे हैं। निर्णय लेने से पहले, आपके लिए यह समझना महत्वपूर्ण है कि हम शोध क्यों कर रहे हैं और इसमें क्या शामिल होगा। कृपया निम्नलिखित जानकारी को ध्यान से पढ़ें और यदि आप चाहें तो दूसरों के साथ इस पर चर्चा करें।कृपया हमसे पूछें अगरकुछ है जो स्पष्ट नहीं है या यदि आप अधिक जानकारी चाहते हैं।यह तय करने के लिए समय निकालें कि आप भाग लेना चाहते हैं या नहीं।

शोध का उद्देश्य: माइकोसिसफन्गोएडसत्वचीय टी-सेल लिम्फोमास के रूप में जाना जाने वाला त्वचा कैंसर के एक समूह का सबसे आम प्रकार है।यह आमतौर पर प्रारंभिक चरण मेंपपड़ीदार घावों के रूप में प्रस्तुत होता है और इस प्रकार एक नैदानिक चुनौती बना रहता है क्योंकि इसकी नैदानिक प्रस्तुति अन्य त्वचा रोगों जैसे एक्जिमा और सोरायसिस की नकल कर सकती है।सोरायसिस या एक्जिमा के रूप में एमएफ की नैदानिक गलत व्याख्या अक्सर बायोप्सी परीक्षा में देरी करती है और इस प्रकार प्रारंभिक निदान और इष्टतम प्रबंधन में देरहो सकती

है।हम विभिन्न निष्कर्षों को देखना चाहते हैं जिन्हें हम एक डर्मेटोस्कोप नामक उपकरण के माध्यम से देख सकते हैं।डर्मेटोस्कोप एक उपकरण है जिसका उपयोग आवर्धन के तहत त्वचा देखने के लिएकिया जाता है।कुछ विशेषताएं हैं जो डर्मोस्कोपी पर देखी जाती हैं जो एमएफ, सोरायसिस और एक्जिमा के विशिष्ट हैं जो इन स्थितियों में से प्रत्येक के शुरुआती निदान में मदद करती हैं।हम इस विषय पर शोध करना चाहते हैं क्योंकि इस विषय पर बहुत कम जानकारी है।यह अध्ययन हमें शुरुआती एमएफ में डर्मोस्कोपी पर न केवल विभिन्न विशेषताओं की बेहतर समझ देगा, बल्कि सोरायसिस और एक्जिमा के साथ उनकी तुलना भी करेगाऔर यह पता लगाने में भी मदद करेगा कि इनमें से प्रत्येक बीमारी लोगों के जीवन की गुणवत्ता को कैसे प्रभावित करती है।यह बीमारी के अधिक सटीक निदान और पूर्वपहचान और एमएफ के प्रबंधन के लिए उपयोगी होगा।

विषय की भागीदारी की अपेक्षित अवधि: अध्ययन अवधि में केवल एक बार डॉक्टर द्वारा आपकीजांच की जाएगी।

प्रक्रियाओं का विवरण:डॉक्टर विस्तृत त्वचीय परीक्षा करेंगे और सूचना को एक विशेष प्रपत्रमें नोट करेंगे। विभिन्न आवर्धन में त्वचा की जांच की जाएगी और वीडियो डर्मेटोस्कोप नामक एक विशेष उपकरण का उपयोग करके तस्वीरें ली जाएंगी। हम विशिष्ट प्रश्न भी पूछेंगे कि रोग रोगी के जीवन की गुणवत्ता को कैसे प्रभावित करता है। अध्ययन के अंत में, हम अब तक प्राप्त सभी आंकड़ों का विश्लेषण करेंगे और पहले किए गए अध्ययनों के साथ इसे सहसंबंधित करेंगे।

विषय के लिए जोखिम या असुविधाएँ:शून्य

विषय के लिए लाभ: डोपोस्कोपिक निष्कर्ष बायोप्सी करने से पहले एमएफ, सोरायसिस और एक्जिमा के नैदानिक निदान में मदद करते हैं और इस तरह हमें जल्दी सटीक निदान करने में मदद करते हैं और आगे के उपचार के लिए उचित योजना बनाने में सहायकहैं।यह मूल्यांकन करने में भी मदद करता है कि यह उनके जीवन की गुणवत्ता को कैसे प्रभावित करेगा।

दूसरों को लाभ: इस अध्ययन से हमें रोगियों में एमएफ, सोरायसिस और एक्जिमा के विभिन्न डर्मोस्कोपिक विशेषताएंऔर उनके जीवन की गुणवत्ता पर प्रभावकी बेहतर समझ प्राप्त करने में मदद मिलेगी। हम जो तथ्य इकट्ठा करते हैं, वह एमएफ की शुरुआती पहचान और उपचार के लिए उपयोगी होगा।

गोपनीयता: आपका नाम और पता किसी भी समय प्रकट नहीं किया जाएगा। अनुसंधान के दौरान आपके बारे में एकत्र की गई सभी जानकारी को कड़ाई से गोपनीय रखा जाएगा जब तक कि हमें किसी भी जानकारी को साझा करने के लिए कानून द्वारा आवश्यक न हो।

भागीदारी: यह आपको तय करना है कि भाग लेना है या नहीं। बिना किसी कारण बताए आप किसी भी समय अध्ययन से पीछे हट सकते हैं। वापस लेने का निर्णय, या भाग न लेने का निर्णय, आपके द्वारा प्राप्त देखभाल के मानक को प्रभावित नहीं करेगा।

संपर्क व्यक्ति:

डॉ। सूर्या मेरी मैथ्यू

पोस्ट ग्रेजुएट निवासी,

त्वचा विज्ञान विभाग,

क्रिश्चियन मेडिकल कॉलेज,

वेल्लोर, तमिलनाडु

मोबाइल- 8428775792

कार्यालय-04162282054

Patient information sheet- Tamil

டெர்மடோலஜி, வெனெரோலஜி மற்றும் லெப்ரோசி யூனிட் ॥ துறை
கிறிஸ்டியன் மெடிக்கல் கல்லூரி, வேலூர், தமிழ்நாடு

நோயாளி தகவல் தாள்

ஆய்வு தலைப்பு:
மைக்கோசிஸ் பூஞ்சாய்டுகளில் (எம்.எஃப்) டெர்மோஸ்கோபி மற்றும் வாழ்க்கைத் தரம் பற்றிய ஆய்வு மற்றும் ஆரம்பகால எம்.எஃப் இன் டெர்மோஸ்கோபியை பிளேக் சொரியாஸிஸ் (பிபி) மற்றும் டிஸ்காய்டு அரிக்கும் தோலழற்சியுடன் ஒப்பிடுதல்

ஆய்வு தலைப்பு (பொது மக்களுக்கு): சில தோல் நோய்களால் பாதிக்கப்பட்ட நோயாளிகளின் மாக்னிஃபிகேஷனின் கீழ் தோல்-மேற்பரப்பு அம்சங்களைப் படிக்க

தேதி: ___/___/_____

முதன்மை புலனாய்வாளர்: டாக்டர் சூர்யா மேரி மேத்யூ, தோல் துறை, சி.எம்.சி வேலூர்

ஒரு ஆராய்ச்சி ஆய்வில் பங்கேற்க உங்களை அழைக்கிறோம். நீங்கள் முடிவு செய்வதற்கு முன், நாங்கள் ஏன் ஆராய்ச்சி செய்கிறோம், அதில் என்ன ஈடுபடும் என்பதை நீங்கள் புரிந்துகொள்வது அவசியம். தயவுசெய்து பின்வரும் தகவல்களை கவனமாகப் படித்து, நீங்கள் விரும்பினால் மற்றவர்களுடன் விவாதிக்கவும். தெளிவாக இல்லாத ஏதாவது இருக்கிறதா அல்லது கூடுதல் தகவல் வேண்டுமா என்று எங்களிடம் கேளுங்கள். நீங்கள் பங்கேற்க விரும்புகிறீர்களா இல்லையா என்பதை தீர்மானிக்க நேரம் ஒதுக்குங்கள்.

ஆராய்ச்சியின் நோக்கம்: மைக்கோசிஸ் பூஞ்சாய்டுகள் (எம்.எஃப்) தோல் புற்றுநோயின் பொதுவான வகை. இது பொதுவாக ஆரம்ப கட்டத்தில் செதில் புண்களாகத் தோன்றுகிறது, இதனால் அதன் தோற்றம் அரிக்கும் தோலழற்சி மற்றும் தடிப்புத் தோல் அழற்சி போன்ற பிற தோல் நோய்களை நெருக்கமாக ஒத்திருக்கக்கூடும் என்பதால் சரியாக அடையாளம் காண்பது கடினம். தடிப்புத் தோல் அழற்சி அல்லது அரிக்கும் தோலழற்சியால் எம்.எஃப் தவறாகப் புரிந்து கொள்ளப்படும்போது, இது பெரும்பாலும் பயாப்ஸி பரிசோதனையை தாமதப்படுத்துகிறது, இதனால் ஆரம்பகால அடையாளம் மற்றும் தேவையான சிகிச்சையை தாமதப்படுத்துகிறது.

டெர்மடோஸ்கோப் எனப்படும் ஒரு கருவி மூலம் நாம் காணக்கூடிய பல்வேறு கண்டுபிடிப்புகளைப் பார்க்க விரும்புகிறோம். ஒரு டெர்மடோஸ்கோப் (தோல்-மேற்பரப்பு நுண்ணோக்கி) என்பது ஒரு கருவியாகும், இது சருமத்தை உருப்பெருக்கத்தின் கீழ் காட்சிப்படுத்த பயன்படுகிறது. எம்.எஃப், தடிப்புத் தோல் அழற்சி மற்றும் அரிக்கும் தோலழற்சி ஆகியவற்றிற்கு குறிப்பிட்ட தோல்-மேற்பரப்பு நுண்ணோக்கியில் காணப்படும் சில வடிவங்கள் உள்ளன, அவை இந்த ஒவ்வொரு நிலைகளையும் முன்கூட்டியே அடையாளம் காண உதவுகின்றன. இந்த விஷயத்தில் போதுமான ஆராய்ச்சி இல்லாததால் இது குறித்து ஒரு ஆய்வு செய்ய விரும்புகிறோம். ஆரம்பகால எம்.எஃப், தடிப்புத் தோல் அழற்சி மற்றும் அரிக்கும் தோலழற்சி ஆகியவற்றில் தோல் மேற்பரப்பு நுண்ணோக்கியில் காணப்படும் குறிப்பிட்ட வடிவங்களை அடையாளம் காண இந்த ஆய்வு உதவும், மேலும் ஒருவருக்கொருவர் ஒப்பிடுகையில் இது உதவும். ஆகவே எம்.எஃப் இன் ஆரம்பகால அங்கீகாரத்தையும் போதுமான நிர்வாகத்தையும் செய்ய எங்கள் ஆய்வு பயனுள்ளதாக இருக்கும். இந்த ஆய்வு MF பாதிக்கப்படுபவர்களின் வாழ்க்கைத் தரத்தை எவ்வாறு பாதிக்கிறது என்பதைக் கண்டறியவும் உதவும்.

பொருள் பங்கேற்பின் எதிர்பார்க்கப்படும் காலம்: ஆய்வுக் காலத்தில் ஒரு முறை மட்டுமே நீங்கள் மருத்துவரால் பரிசோதிக்கப்படுவீர்கள்.

நடைமுறைகளின் விளக்கம்: மருத்துவர் விரிவான கட்னியஸ் பரிசோதனையைச் செய்வார் மற்றும் தகவல்களை ஒரு சிறப்பு வடிவத்தில் குறிப்பிடுவார். வெவ்வேறு உருப்பெருக்கங்களில் தோலை பரிசோதிப்பது மற்றும் வீடியோ டெர்மடோஸ்கோப் என்ற சிறப்பு கருவியைப் பயன்படுத்தி புகைப்படங்கள் எடுக்கப்படும். எம்.எஃப் மீது மருத்துவ சந்தேகம் இருக்கும்போது தோல் பயாப்ஸி செய்யப்படும். இந்த நோய் நோயாளியின் வாழ்க்கைத் தரத்தை எவ்வாறு பாதிக்கிறது என்பது குறித்தும் குறிப்பிட்ட கேள்விகளைக் கேட்போம். ஆய்வின் முடிவில், இதுவரை பெறப்பட்ட அனைத்து தரவையும் பகுப்பாய்வு செய்து, முன்னர் செய்த ஆய்வுகளுடன் தொடர்புபடுத்துவோம்.

பொருள் அபாயங்கள் அல்லது அச om கரியங்கள்:
இல்லை

பொருளுக்கு நன்மைகள்: பயாப்ஸி செய்வதற்கு முன் எம்.எஃப், தடிப்புத் தோல் அழற்சி மற்றும் அரிக்கும் தோலழற்சியின் மருத்துவ ஆய்வுக்கு டெர்மோஸ்கோபிக் கண்டுபிடிப்புகள் உதவுகின்றன, இதனால் ஆரம்பகால நோயறிதல்களைச் செய்வதற்கும் மேலதிக சிகிச்சைக்கு பொருத்தமான திட்டத்தை உருவாக்குவதற்கும் எங்களுக்கு உதவுகின்றன. எம்.எஃப் அவர்களின் வாழ்க்கைத் தரத்தை எவ்வாறு பாதிக்கிறது என்பதை மதிப்பீடு செய்ய இது உதவுகிறது.

மற்றவர்களுக்கு நன்மைகள்: நோயாளிகளில் எம்.எஃப், சொரியாஸிஸ் மற்றும் அரிக்கும் தோலழற்சியின் பல்வேறு டெர்மோஸ்கோபிக் அம்சங்கள் மற்றும் எம்.எஃப் அவர்களின் வாழ்க்கைத் தரத்தை எவ்வாறு பாதிக்கிறது என்பதைப் பற்றி நன்கு புரிந்துகொள்ள இந்த ஆய்வு உதவும் .நாம் சேகரிக்கும் தரவு எம்.எஃப் ஆரம்பகால அங்கீகாரம் மற்றும் சிகிச்சைக்கு பயனுள்ளதாக இருக்கும்.

ரகசியத்தன்மை: எந்த நேரத்திலும் உங்கள் பெயர் மற்றும் முகவரி வெளிப்படுத்தப்படாது. எந்தவொரு தகவலையும் பகிர்ந்து கொள்ள நாங்கள் சட்டப்படி தேவைப்படாவிட்டால், ஆராய்ச்சியின் போது உங்களைப் பற்றி சேகரிக்கப்பட்ட அனைத்து தகவல்களும் கண்டிப்பாக ரகசியமாக வைக்கப்படும்..

பங்கேற்பு: பங்கேற்கலாமா வேண்டாமா என்பதை நீங்கள் தீர்மானிக்க வேண்டும். எந்தவொரு காரணத்தையும் தெரிவிக்காமல், எந்த நேரத்திலும் நீங்கள் படிப்பிலிருந்து விலகுவதற்கு இன்னும் சுதந்திரமாக இருக்கிறீர்கள். திரும்பப் பெறுவதற்கான முடிவு, அல்லது பங்கேற்காத ஒரு முடிவு, நீங்கள் பெறும் கவனிப்பின் தரத்தை பாதிக்காது.

தொடர்பு நபர்: டாக்டர் சூர்யா மேரி மேத்யூ

முதுகலை பட்டதாரி,

தோல் துறை,

கிறிஸ்தவ மருத்துவக் கல்லூரி,

வேலூர், தமிழ்நாடு

மொபைல்- 8428775792

அலுவலகம் -04162282054

Patient information sheet- Bengali

রোগী তথ্য শীট

অধ্যয়নের শিরোনাম: মাইকোসিস ফানগোইডস (এমএফ) এর ডার্মোস্কোপি এবং জীবন মানের বিষয়ে একটি গবেষণা এবং প্লেক সোরিয়াসিস (পিপি) এবং ডিস্কয়েড একজিমার সাথে প্রারম্ভিক এমএফ এর ডার্মোস্কপির তুলনা।

অধ্যয়নের শিরোনাম (জনসাধারণের জন্য): কিছু ত্বকের রোগাক্রান্ত রোগীদের চামড়ার পৃষ্ঠের বৈশিষ্ট্যগুলি অধ্যয়ন করতে।

তারিখ: ____/____/_____

প্রধান তদন্তকারী: ডঃ সূর্য মেরি ম্যাথিউ, চর্মরোগ বিভাগ, সিএমসি ভেলোর।

আমরা আপনাকে একটি গবেষণা গবেষণায় অংশ নিতে আমন্ত্রণ জানাচ্ছি। আপনি সিদ্ধান্ত নেওয়ার আগে, আপনি কেন গবেষণা করছেন এবং এটিতে কী জড়িত তা বোঝা আপনার পক্ষে গুরুত্বপূর্ণ। দয়া করে নীচের তথ্যগুলি মনোযোগ সহকারে পড়ুন এবং আপনি চান তা অন্যের সাথে আলোচনা করুন। আমাদের কাছে জিজ্ঞাসা করুন এমন কিছু আছে যা পরিষ্কার নয় বা আপনি আরও তথ্য চান কিনা। আপনি অংশ নিতে চান কিনা তা সিদ্ধান্ত নিতে সময় নিন।

গবেষণার উদ্দেশ্য: মাইকোসিস ফাংগোয়েডস (এমএফ) একটি সাধারণ ধরণের ত্বকের ক্যান্সার। এটি সাধারণত প্রাথমিক পর্যায়ে ক্ষত হিসাবে উপস্থিত হয় এবং সঠিকভাবে সনাক্ত করা কঠিন কারণ এর উপস্থিতি অন্যান্য ত্বকের রোগ যেমন একজিমা এবং সোরিয়াসিসের সাথে খুব সম্ভবত মিলিত হতে পারে। যখন এমএফ ভুলভাবে সোরিয়াসিস বা একজিমা হয় তবে এটি প্রায়শই বায়োপসি পরীক্ষা দেরি করে এবং তাই প্রাথমিক সনাক্তকরণ এবং প্রয়োজনীয় চিকিত্সা বিলম্বিত করে। ডার্মাটোস্কোপ নামে একটি যন্ত্রের মাধ্যমে আমরা যে বিভিন্ন অনুসন্ধান দেখতে পেলাম তা আমরা দেখতে চাই। একটি ডার্মাটোস্কোপ (ত্বক-পৃষ্ঠের মাইক্রোস্কোপ) এমন একটি যন্ত্র যা ত্বকের ম্যাগনিফিকেশনের অধীনে কল্পনা করতে ব্যবহৃত হয়। এমন কিছু নিদর্শন রয়েছে যা ত্বক-পৃষ্ঠের মাইক্রোস্কোপিতে দেখা যায় যা এমএফ, সোরিয়াসিস এবং একজিমা সম্পর্কিত যা এই শর্তগুলির প্রতিটি প্রাথমিক সনাক্তকরণে সহায়তা করে। এই বিষয়ে পর্যাপ্ত গবেষণা না হওয়ায় আমরা এ নিয়ে একটি গবেষণা করতে চাই। এই গবেষণাটি এমএফ, সোরিয়াসিস এবং একজিমাতে প্রারম্ভিক ত্বকের পৃষ্ঠের মাইক্রোস্কোপিতে প্রদর্শিত নির্দিষ্ট নিদর্শনগুলি সনাক্ত করতে সহায়তা করবে এবং একে অপরের সাথে তুলনা করতে সহায়তা করবে। এমএফ এর প্রাথমিক

স্বীকৃতি এবং পর্যাপ্ত ব্যবস্থাপনার জন্য আমাদের অধ্যয়ন কার্যকর হবে। এই অধ্যয়ন এমএফ এর দ্বারা প্রভাবিত ব্যক্তিদের জীবনমানকে কীভাবে প্রভাবিত করে তা সন্ধান করতে সহায়তা করবে।

সাবজেক্টের অংশগ্রহণের প্রত্যাশিত সময়কাল: অধ্যয়নকালীন সময়ে আপনাকে একবার ডাক্তার দ্বারা পরীক্ষা করা হবে।

পদ্ধতিগুলির বিবরণ: চিকিত্সক বিশদ চিকিত্সা পরীক্ষা করবেন এবং একটি বিশেষ আকারে তথ্যটি নোট করবেন। বিভিন্ন ম্যাগনিফিকেশনে ত্বকের পরীক্ষা করা হবে এবং ভিডিও ডার্মাটোস্কোপ নামে একটি বিশেষ যন্ত্র ব্যবহার করে ছবি তোলা হবে। এমএফের ক্লিনিকাল সন্দেহ থাকলে ত্বকের বায়োপসি করা হবে। রোগ কীভাবে রোগীর জীবনমানকে প্রভাবিত করে সে সম্পর্কেও আমরা নির্দিষ্ট প্রশ্ন জিজ্ঞাসা করব। অধ্যয়নের শেষে, আমরা এখন পর্যন্ত প্রাপ্ত সমস্ত ডেটা বিশ্লেষণ করব এবং এটি পূর্বে সম্পন্ন অধ্যয়নগুলির সাথে সম্পর্কিত করব।

বিষয়টিতে ঝুঁকি বা অসুবিধা:

নিল

সাবজেক্টের উপকারিতা: ডার্মোস্কোপিক অনুসন্ধানগুলি বায়োপসি করার আগে এমএফ, সোরিয়াসিস এবং একজিমার ক্লিনিকাল রোগ নির্ণয় করতে সহায়তা করে এবং তাই আমাদের প্রাথমিক রোগ নির্ণয় করতে এবং আরও চিকিত্সার জন্য উপযুক্ত পরিকল্পনা তৈরিতে সহায়তা করে। এটি এমএফ তাদের জীবন মানের কীভাবে প্রভাবিত করে তা মূল্যায়নে সহায়তা করে।

অন্যের উপকারিতা: এই অধ্যয়নটি রোগীদের এমএফ, সোরিয়াসিস এবং একজিমার বিভিন্ন ডার্মোস্কোপিক ফিয়ারগুলি এবং এমএফ তাদের জীবনযাত্রার মানকে কীভাবে প্রভাবিত করে তার আরও ভাল ধারণা পেতে সহায়তা করবে we আমাদের সংগ্রহ করা ডেটা এমএফের প্রাথমিক স্বীকৃতি এবং চিকিত্সার জন্য কার্যকর হবে।

গোপনীয়তা: আপনার নাম এবং ঠিকানা যে কোনও সময় প্রকাশিত হবে না। গবেষণা চলাকালীন আপনার সম্পর্কে সংগৃহীত সমস্ত তথ্য কঠোরভাবে গোপনীয় রাখা হবে যদি না আইন দ্বারা আমাদের কোনও তথ্য ভাগ করে নেওয়ার প্রয়োজন হয়।

অংশগ্রহন: অংশ নেবেন কি করবেন না তা সিদ্ধান্ত নেওয়া আপনার উপর নির্ভর করে। আপনি এখনও কোনও কারণ ছাড়াই যে কোনও সময় অধ্যয়ন থেকে সরে আসতে পারেন are প্রত্যাহারের সিদ্ধান্ত, বা অংশ না নেওয়ার সিদ্ধান্ত, আপনার প্রাপ্ত যত্নের মানকে প্রভাবিত করবে না।

যোগাযোগ ব্যক্তি: ডাঃ সূর্য মেরি ম্যাথিউ

স্নাতকোত্তর বাসিন্দা,

চর্মরোগ বিভাগ,

খ্রিস্টান মেডিকেল কলেজ,

ভেলোর, তামিলনাড়ু

মোবাইল- 8428775792

অফিস -04162282054

Patient information sheet- Telugu

రోగులకుసమాచారం

అధ్యయనంశీర్షిక: మైకోసిస్ఫంగోయిడ్స్(MF) లో డెర్మోస్కోపీ మరియు జీవననాణ్యత పై అధ్యయనం మరియ ప్రారంభ MF యొక్క డెర్మోస్కోపీని ప్లేక్ సోరియాసిస్ (పిపి) మరియు డిస్కోయిడ్తామర తోపోల్చడం.

స్టడీపైటిల్(సాధారణప్రజలకు):కొన్ని చర్మ వ్యాధులతో బాధపడుతున్న రోగులమాగ్నిఫికేషన్కిందచర్మ-ఉపరితలలక్షణాలఅధ్యయనం.

డేట్:____/____/_____

ప్రధానపరిశోధకుడు: డాక్టర్సూర్యమేరీమాథ్యూ, డెర్మటాలజీవిభాగం, సిఎంసివెల్లూర్.

పరిశోధన అధ్యయనం లో పాల్గొనమని మేము మిమ్మల్ని ఆహ్వానిస్తున్నాము. మీరు నిర్ణయించేముందు, మేము ఎందుకు పరిశోధన చేస్తున్నామో మరియు దానిలో ఏమి ఉంటుందో మీరు అర్థం చేసుకోవాలి. దయచేసి కింది సమాచారాన్ని జాగ్రత్తగా చదవండి మరియు మీరు కోరుకుంటే ఇతరులతో చర్చించండి. స్పష్టంగా తెలియనిదిఏదైనా ఉందా లేదా మీకు మరింత సమాచారం కావాలాఅని మమ్మల్ని అడగండి. మీరు పాల్గొనాలనుకుంటున్నారా లేదా అని నిర్ణయించడానికి సమయం కేటాయించండి

పరిశోధనయొక్కఉద్దేశ్యం: మైకోసిస్ఫంగోయిడ్స్ (MF) అనేది చర్మక్యాన్సర్యొక్క సాధారణరకం.ఇది సాధారణంగా ప్రారంభదశలో పొలుసుల గాయాలుగా కనిపిస్తుంది మరియు దీని రూపాన్నితామర మరియు సోరియాసిస్వంటి ఇతర చర్మవ్యాధులను దగ్గరగా పోలి ఉంటుంది కాబట్టి సరిగ్గా గుర్తించడం కష్టం. సోరియాసిస్లేదా తామర అని తప్పుగా భావించినప్పుడు, బయాప్సీ పరీక్షను ఆలస్యం చేస్తుంది మరియు తద్వారా ముందస్తు గుర్తింపు మరియు అవసరమైన చికిత్సను ఆలస్యం చేస్తుంది. డెర్మాటోస్కోప్ అనే పరికరం ద్వారా మనం చూడగలిగే వివిధ ఫలితాలను చూడాలనుకుంటున్నాము. డెర్మాటోస్కోప్ (స్కిన్-ఉపరితలమైక్రోస్కోప్) అనేది మాగ్నిఫికేషన్కింద చర్మాన్ని దృశ్యమానం చేయడానికి ఉపయోగించే ఒక పికరం. చర్మం-ఉపరితల మైక్రోస్కోపీలో కనిపించే కొన్ని నమూనాలు MF, సోరియాసిస్మరియు తామరలకు ప్రత్యేకమైనవి, ఇవి ప్రతిపరిస్థితిని ముందు గా గుర్తించడం లో సహాయ పడతాయి. ఈవిషయం పై తగిన పరిశోధనలు లేనందున దీని పై ఒక అధ్యయనం చేయాలనుకుంటున్నాము. ఈ అధ్యయనం ప్రారంభ MF, సోరియాసిస్మరియు తామరలలో చర్మ పరితల మైక్రోస్కోపీలో కనిపించే నిర్దిష్ట మూననాలను గుర్తించడం లో సహాయపడుతుంది మరియు ఒకదదానితో ఒకటి పోల్చడం లో కూడా సహాయపడుతుంది. అందువల్ల మా అధ్యయనం MF యొక్క ప్రారంభ గుర్తింపు మరియు తగిన నిర్వహణకు ఉపయోగపడుతుంది. ఈ అధ్యయనం MF దాని తోబాధపడుతున్న ప్రజల జీవననాణ్యతను ఎలా ప్రభావితం చేస్తుందో తెలుసుకోవడానికి కూడా సహాయపడుతుంది.

విషయంపాల్గొనే వ్యవధి: అధ్యయనవ్యవధిలో ఒకసారిమాత్రమే మీరు డాక్టర్చేత పరీక్షించబడతారు.

విధానాల వివరణ: వైద్యుడు వివరణాత్మక కటానియస్పరీక్ష చేస్తాడు మరియు సమాచారాన్ని ప్రత్యేకరూపంలో గమనిస్తాడు. వేర్వేరు మాగ్నిఫికేషన్లలో చర్మాన్ని పరీక్షించడం జరుగుతుంది మరియు వీడియో డెర్మాటోస్కోప్ అనే ప్రత్యేకపరికరాన్ని ఉపయోగించి ఛాయాచిత్రాలు తీయబడతాయి. MF పై క్లినికల్ అనుమానం ఉన్నప్పుడు స్కిన్బయాప్సీ చేయబడుతుంది. ఈ వ్యాధి రోగి యొక్క జీవననాణ్యతను ఎలా ప్రభావితం చేస్తుందనేదాని గురించి కూడా మేము నిర్దిష్ట ప్రశ్నలు అడుగుతాము. అధ్యయనం చివరలో, మేము ఇప్పటి వరకు పొందిన మొత్తం డేటాను విశ్లేషిస్తాము మరియు గతంలో చేసిన అధ్యయనాల తో పరస్పర సంబంధం కలిగిఉంటాము.
విషయాని ప్రమాదాలులేదాఅసౌకర్యాలు: శూన్యం

విషయానికి ప్రయోజనాలు: బయాప్సీ చేయడానికి ముందు MF, సోరియాసిస్మరియు తామర యొక్క క్లినికల్డయాగ్నసిస్లో డెర్మోస్కోపిక్పరిశోధనలు సహాయపడతాయి మరియు తద్వారా ముందస్తు రోగ నిర్ధారణ చేయడంలో మరియు మరింత చికిత్స కోసం తగిన ప్రణాళికను రూపొందించడం లో మాకు సహాయపడతాయి. MF వారి జీవననాణ్యతను ఎలా ప్రభావితం చేస్తుందో అంచనా వేయడం లో కూడా ఇది సహాయపడుతుంది.
ఇతరులకు ప్రయోజనాలు: రోగులలో MF, సోరియాసిస్మరియు తామర యొక్క వివిధ డెర్మోస్కోపిక్ఫీచర్ల గురించి మరియు MF వారి జీవననాణ్యతను ఎలా ప్రభావితం చేస్తుందో ఈ అధ్యయనం మాకు సహాయపడుతుంది .మేము సేకరించిన డేటా MF యొక్క ప్రారంభ గుర్తింపు మరియు చికిత్సకు ఉపయోగపడుతుంది.

గోప్యత: మీ పేరు మరియు చిరునామా ఏసమయం లోనైనా బయటపడవు. పరిశోధన సమయంలో మీ గురించి సేకరించిన మొత్తం సమాచారం ఖచ్చితంగా గోప్యంగా ఉంచబడుతుంది తప్పఏదైనా సమాచారాన్ని పంచుకోవడానికి మాకు చట్టంఅవసరంలేదు.
పాల్గొనడం: పాల్గొనాలా వద్దా అని నిర్ణయించుకోవడం మీ ఇష్టం. మీరు ఇంకా ఎటువంటి కారణం చెప్పకుండా, ఎప్పుడైనా అధ్యయనం నుండి వైదొలగడానికి స్వేచ్ఛగా ఉన్నారు. ఉపసంహరించుకునే నిర్ణయం లేదా పాల్గొనకూడదనే నిర్ణయం మీకు లభించే సంరక్షణ ప్రమాణాన్ని ప్రభావితంచేయదు.

వ్యక్తినిసంప్రదించండి: డాక్టర్సూర్యమేరీమాథ్యూ

పోస్ట్డాక్టోరల్ఫెలో,

డెర్మటాలజీ విభాగం,

క్రిస్టియన్మెడికల్కాలేజ్,

వెల్లూర్, తమిళనాడు

మొబైల్- 8428775792

ఆఫీస్ -04162282054

Patient information sheet- Malayalam

പഠനത്തിൽ പങ്കെടുക്കുന്നതായ രോഗികൾക്കുള്ള വിവരങ്ങൾ

പഠനശീർഷകം:

മൈക്കോസിസ്ഫംഗോയിഡസ് **(**എംഎഫ്) രോഗത്തിലെ ഡെർമോസ്കോപ്പി, ജീവിതനിലവാരം എന്നിവയെക്കുറിച്ചുള്ള പഠനവും ഏർലി എംഎഫിന്റെ ഡെർമോസ്കോപ്പിയെ പ്ലേക്ക് സോറിയാസിസ് (പിപി), ഡിസ്കോയിഡ് എക്സിമ എന്നീ രോഗങ്ങളുമായി താരതമ്യം ചെയ്യുന്നു.

പഠനശീർഷകം(**പൊതുജനങ്ങൾക്കായി**): ചില പ്രത്യേക ചർമ്മരോഗങ്ങളുള്ള രോഗികളുടെ മൈക്രോസ്കോപ്പിനു കീഴിലുള്ള ചർമ്മ-ഉപരിതല സവിശേഷതകൾ പരിശോധിക്കാനുള്ള പഠനം

തീയതി: ____/____/_____

പ്രധാനഅന്വേഷക: ഡോ. സൂര്യ മേരി മാത്യു, ത്വക്ക് രോഗ വിഭാഗം, സിഎംസി വെല്ലൂർ.

ഒരു ഗവേഷണപഠനത്തിൽ പങ്കെടുക്കാൻ ഞങ്ങൾ നിങ്ങളെ ക്ഷണിക്കുന്നു. നിങ്ങൾ തീരുമാനിക്കുന്നതിനു മുമ്പ്, ഞങ്ങൾ എന്തിനാണ് ഗവേഷണം നടത്തുന്നതെന്നും അതിൽ എന്താണ് ഉൾപ്പെട്ടിരിക്കുന്നതെന്നും നിങ്ങൾ മനസിലാക്കേണ്ടത് പ്രധാനമാണ്. ദയവായി ഇനിപ്പറയുന്ന വിവരങ്ങൾ ശ്രദ്ധാപൂർവ്വം വായിച്ച്നിങ്ങൾ ആഗ്രഹിക്കുന്നുവെങ്കിൽ മറ്റുള്ളവരുമായി ചർച്ച ചെയ്യുക. വ്യക്തമല്ലാത്ത എന്തെങ്കിലും അല്ലെങ്കിൽ ഇതിനെക്കുറിച്ചുള്ള കൂടുതൽ വിവരങ്ങൾ വേണമെങ്കിലും നിങ്ങൾക്ക്ഞങ്ങളോട്ചോദിക്കാം. നിങ്ങൾ പങ്കെടുക്കാൻ ആഗ്രഹിക്കുന്നുണ്ടോ ഇല്ലയോ എന്ന്തീരുമാനിക്കാൻ സമയമെടുക്കുക.

ഗവേഷണത്തിന്റെഉദ്ദേശ്യം: കൃൂട്ടേനിയസ് റ്റി-സെൽ ലിംഫോമാസ് **(**സിടിസിഎൽ**)** എന്നറിയപ്പെടുന്ന, ത്വക്ക്കാൻസറുകളിൽഏറ്റവും സാധാരണമായതരം മൈക്കോസിസ്ഫംഗോയിഡുകൾ**(**എംഎഫ്) ആണ്**.** ഇത് ആദ്യഘട്ടത്തിൽ പുറംതൊലിയിലെ ശൽക്കങ്ങളുള്ള പീഡ ആയി അവതരിക്കുന്നു**,** അതിനാൽ അതിന്റെ ചികിത്സാവിധി സംബന്ധിയായ അവതരണം എക്സിമ(കരപ്പൻ**),** സോറിയാസിസ്**(**പാടുവരുത്തുന്നഒരുതരംത്വക്രോഗം) പോലുള്ള മറ്റ്ത്വക്രോഗങ്ങളെ അനുകരിക്കാമെന്നതിനാൽ ഇത് ഒരു രോഗലക്ഷണ പ്രതിപാദന ശാസ്ത്രവെല്ലുവിളിയായി തുടരുന്നു**.**
സോറിയാസിസ് അല്ലെങ്കിൽ എക്സിമ എന്ന നിലയിൽ എം.എഫിന്റെ ചികിത്സാവിധി സംബന്ധിയായ തെറ്റായ വ്യാഖ്യാനം പലപ്പോഴും ബയോപ്സി**(**രോഗനിദാനമറിയാന് ജീവശരീരത്തില് നിന്ന് കലകളോ ദ്രവമോ നീക്കല് **)** പരിശോധന വൈകിപ്പിക്കുകയും അതിനാൽ നേരത്തെയുള്ളരോഗ നിർണയവും ഏറ്റവും നല്ലതായ ചികിത്സ നൽകാൻ കാലതാമസം വരുത്തുകയും ചെയ്യുന്നു**.**

ഡെർമറ്റോസ്കോപ്പ് എന്ന ഉപകരണത്തിലൂടെ നമുക്ക്കാണാൻ കഴിയുന്ന വിവിധ സവിശേഷതകൾ കാണാൻ ഞങ്ങൾ ആഗ്രഹിക്കുന്നു. മാഗ്നിഫിക്കേഷന്കീഴിൽ ചർമ്മത്തെ ദൃശ്യവൽക്കരിക്കുന്നതിന് ഉപയോഗിക്കുന്ന ഒരു ഉപകരണമാണ് ഡെർർമറ്റോസ്കോപ്പ് (ചെറുവസ് തുക്കളെവലുതാക്കിക്കാണിക്കുന്നഉപകരണം). എംഎഫ്, സോറിയാസിസ്, എക്സിമ എന്നിവയ്ക്ക്സമാനമായ ചില സവിശേഷതകൾ ഡെർമോസ്കോപ്പിയിൽ കാണപ്പെടുന്നു,
ഇത് ഈ അവസ്ഥകളെല്ലാം നേരത്തെ നിർണ്ണയിക്കാൻ സഹായിക്കുന്നു. ഈ വിഷയത്തെക്കുറിച്ച്ഗവേഷണ വിവരങ്ങൾ വളരെ കുറവാണ്. അതിനാൽ ഈ വിഷയത്തെക്കുറിച്ച്ഗവേഷണം നടത്താൻ ഞങ്ങൾ ആഗ്രഹിക്കുന്നു.
ആദ്യകാല എംഎഫിലെ ഡെർമോസ്കോപ്പിയിലെ വ്യത്യസ്ത സവിശേഷതകളെക്കുറിച്ച്മാത്രമല്ല, സോറിയാസിസ്, എക്സിമ എന്നിവയുമായുള്ള താരതമ്യത്തെക്കുറിച്ചും ഈ പഠനം നമുക്കുകൂടുതൽ മനസ്സിലാക്കാൻ സഹായിക്കും, മാത്രമല്ല ഈ രോഗങ്ങൾ ഓരോന്നും ജനങ്ങളുടെ ജീവിതനിലവാരത്തെ എങ്ങനെ ബാധിക്കുന്നുവെന്ന്കണ്ടെത്താനും സഹായിക്കും. രോഗം കൂടുതൽ കൃത്യമായി നിർണ്ണയിക്കുന്നതിനും എംഎഫിന്റെ നേരത്തെയുള്ള തിരിച്ചറിയലിനും ചികിത്സയ്ക്ക്കും ഇത് ഉപയോഗപ്രദമാകും.
വിഷയപങ്കാളിത്തത്തിന്റെപ്രതീക്ഷിതകാലാവധി:പഠനകാലയ ളവിൽ ഒരു തവണമാത്രമേ നിങ്ങളെ ഡോക്ടർ പരിശോധിക്കുകയുള്ളൂ.

നടപടിക്രമങ്ങളുടെവിവരണം: ഡോക്ടർ വിശദമായ ചർമ്മ പരിശോധന നടത്തുകയും വിവരങ്ങൾ ഒരു പ്രത്യേക രൂപത്തിൽ രേഖപ്പെടുത്തുകയും ചെയ്യും. വ്യത്യസ്തമാഗ്നിഫിക്കേഷനുകളിൽ ചർമ്മത്തിന്റെ പരിശോധനനടത്തുകയും വീഡിയോഡെർമറ്റോസ്കോപ്പ് എന്ന പ്രത്യേകഉപകരണം ഉപയോഗിച്ച്ഫോട്ടോഗ്രാഫുകൾ എടുക്കുകയും ചെയ്യും. എം.എഫിനെക്കുറിച്ചോഗനിർണ്ണയ സംശയം ഉണ്ടാകുമ്പോൾത്വക്ക്ബയോപ്സിനടത്തും.
രോഗിയുടെ ജീവിത നിലവാരത്തെ രോഗം എങ്ങനെ ബാധിക്കുന്നു എന്നതിനെക്കുറിച്ചും ഞങ്ങൾ പ്രത്യേക ചോദ്യങ്ങൾ ചോദിക്കും. പഠനത്തിന്റെ അവസാനം, ഇതുവരെ ലഭിച്ച എല്ലാ വിവരങ്ങളും ഞങ്ങൾ വിശകലനം ചെയ്യുകയും മുമ്പ്നടത്തിയ പഠനങ്ങളുമായി താരതമ്യപ്പെടുത്തുകയും ചെയ്യും.

പങ്കെടുക്കുന്നയാൾക്കുള്ളഅപകടങ്ങളോഅസ്വസ്ഥതകളോ:
ഒന്നുമില്ല
പങ്കെടുക്കുന്നയാൾക്കുള്ളനേട്ടങ്ങൾ: ബയോപ്സി നടത്തുന്നതിനുമുമ്പ് എംഎഫ്, സോറിയാസിസ്, എക്സിമ എന്നിവയുടെ രോഗനിർണയത്തിന്ഡെർമോസ്കോപ്പിക്കണ്ടെത്തലുകൾ സഹായിക്കുന്നു, അതിനാൽ നേരത്തെയുള്ള

കൃത്യമായരോഗനിർണയം നടത്താനും കൂടുതൽ ചികിത്സയ്ക്കായി ഉചിതമായ പദ്ധതിതയ്യാറാക്കാനും ഇത്ഞങ്ങളെ സഹായിക്കുന്നു. ഇത് അവരുടെ ജീവിതനിലവാരത്തെ എങ്ങനെ ബാധിക്കുന്നുവെന്ന് വിലയിരുത്തുന്നതിനും സഹായിക്കുന്നു.

മറ്റുള്ളവർക്കുള്ളനേട്ടങ്ങൾ: രോഗികളിലെഎംഎഫ്, സോറിയാസിസ്, എക്സിമ എന്നിവയുടെ വിവിധ ഡെർമോസ്കോപ്പിക്ക വിശേഷതകളെക്കുറിച്ചും അത് അവരുടെ ജീവിത നിലവാരത്തെ എങ്ങനെ ബാധിക്കുന്നുവെന്നതിനെക്കുറിച്ചും നന്നായി മനസ്സിലാക്കാൻ ഈ പഠനം സഹായിക്കും. ഞങ്ങൾ ശേഖരിക്കുന്ന വിവരങ്ങള് എംഎഫിന്റെ നേരത്തെയുള്ള തിരിച്ചറിയലിനും ചികിത്സയ്ക്കും ഉപയോഗപ്രദമാകും.

രഹസ്യാത്മകത: നിങ്ങളുടെ പേരും വിലാസവും ഒരു സമയത്തും വെളിപ്പെടുത്തില്ല. ഗവേഷണവേളയിൽ നിങ്ങളെക്കുറിച്ച്ശേഖരിക്കുന്ന എല്ലാ വിവരങ്ങളും നിയമപ്രകാരം പങ്കിടാൻ ആവശ്യപ്പെടുന്നില്ലെങ്കിൽ കർശനമായി രഹസ്യമായി സൂക്ഷിക്കും,.

പങ്കാളിത്തം: പങ്കെടുക്കണോ വേണ്ടയോ എന്ന് തീരുമാനിക്കേണ്ടത് നിങ്ങളാണ്. ഒരു കാരണവും നൽകാതെ നിങ്ങൾക്ക് എപ്പോൾ വേണമെങ്കിലും പഠനത്തിൽ നിന്ന്പിന്മാറാൻ ഇപ്പോഴും സ്വാതന്ത്ര്യമുണ്ട്. പിന്മാറാനുള്ളതീരുമാനം, അല്ലെങ്കിൽ പങ്കെടുക്കേണ്ടതില്ല എന്ന തീരുമാനം, നിങ്ങൾക്കുഭിക്കുന്ന പരിചരണനിലവാരത്തെ ബാധിക്കില്ല.

ബന്ധപ്പെടേണ്ടവ്യക്തി: ഡോ. സൂര്യ മേരി മാത്യു

ബിരുദാനന്തര റസിഡന്റ്,

ഡെർമറ്റോളജി വിഭാഗം,

ക്രിസ്ത്യൻ മെഡിക്കൽ കോളേജ്,

വെല്ലൂർ, തമിഴ്നാട്

മൊബൈൽ- 8428775792

ഓഫീസ് -04162282054

ANNEXURE 3: INFORMED CONSENT

INFORMED CONSENT-ENGLISH

Study Title: A study on dermoscopy and quality of life in mycosis fungoides (MF) and comparison of dermoscopy of early MF with plaque psoriasis (PP) and discoid eczema

Subject's Name: _____ Age: _____

(i) I confirm that I have read and understood the information sheet dated _____ for the above study and have had the opportunity to ask questions. [ ]
(ii) I understand that my participation in the study is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected. [ ]
(iii) I understand that the Ethics Committee and the regulatory authorities will not need my permission to look at my health records both in respect of the current study and any further research that may be conducted in relation to it, even if I withdraw from the trial. I agree to this access. However, I understand that my identity will not be revealed in any information released to third parties or published. [ ]
(iv) I agree not to restrict the use of any data or results that arise from this study provided such a use is only for scientific purpose(s) [ ]
(v) I consent to allow all my medical images to be used by health professionals for education and training and to be used in paper or electronic health publications [ ]
(vi) I agree to take part in the above study. [ ]

Signature or Thumb impression of the Subject

Signatory's Name: _____ Date: ____/____/_____

Signature of the Investigator: _____Date:_____/_____/_____

Study Investigator's Name: _____

Signature or thumb impression of the Witness: _____

Date: _____/_____/_____

Name & Address of the Witness: _____

Informed consent- Hindi

एक शोध अध्ययन में भाग लेने के लिए सूचित सहमति प्रपत्र

अध्ययन का शीर्षक: **माइकोसिसफन्गोएडस (एमएफ) में डर्मोस्कोपी और जीवन की गुणवत्ता पर एक अध्ययन और प्लाक सोरायसिस (पीपी) और डिसॉइड एक्जिमा के साथ शुरुआती एमएफ की डर्मोस्कोपी की तुलना।**

विषय का नाम: _____ आयु: _____

(i) मैं पुष्टि करता हूं कि मैंने उपरोक्त अध्ययन के लिए दिनांक _____ की सूचना पत्र को पढ़ा और समझा है और मुझे प्रश्न पूछने का अवसर मिला है [ ]

(ii) मैं समझता हूं कि अध्ययन में मेरी भागीदारी स्वैच्छिक है और मैं किसी भी समय, बिना किसी कारण के, बिना मेरी चिकित्सा देखभाल या कानूनी अधिकारों को प्रभावित किए बिना वापस लेने के लिए स्वतंत्र हूं। [ ]

(iii) मैं समझता हूं किएथिक्स कमेटी और नियामक अधिकारियों को वर्तमान अध्ययन और किसी भी अन्य शोध के संबंध में मेरे स्वास्थ्य रिकॉर्ड या सर्जरी रिकॉर्डिंग को देखने के लिए मेरी अनुमति की आवश्यकता नहीं होगी, भले ही मैं परीक्षण से सहमति वापस ले लूं। मैं इस पहुंच से सहमत हूं। हालाँकि, मैं समझता हूँ कि मेरी पहचान तीसरे पक्ष को जारी किसी भी सूचना में या प्रकाशित नहीं की जाएगी। [ ]

(iv) मैं इस अध्ययन से उत्पन्न किसी भी डेटा या परिणामों के उपयोग को प्रतिबंधित नहीं करने के लिए सहमत हूं, बशर्ते ऐसा उपयोग केवल वैज्ञानिक उद्देश्य के लिए हो। [ ]

(v) **मैं शिक्षा और प्रशिक्षण के लिए स्वास्थ्य पेशेवरों द्वारा उपयोग किए जाने वाले सभी चिकित्सा चित्रों के लिए सहमति देता हूं और कागज या इलेक्ट्रॉनिक स्वास्थ्य प्रकाशनों में उपयोग किया जाता है** [ ]

(vi) मैं उपरोक्त अध्ययन में भाग लेने के लिए सहमत हूं। [ ]

विषय / कानूनी रूप से स्वीकार्य के हस्ताक्षर या अंगूठे का निशान

हस्ताक्षरकर्ता का नाम: _____ दिनांक: ____/_____/_____

अन्वेषक का हस्ताक्षर: _____ दिनांक: _____/_____/_____

अध्ययनकर्ता का नाम: _____

साक्षी का हस्ताक्षरया अंगूठे का निशान: _____

दिनांक: _____/_____/_____

गवाह का नाम और पता: _____

Informed consent- Tamil

அறிவிக்கப்பட்ட முடிவு

ஆய்வு தலைப்பு:மைக்கோசிஸ் பூஞ்சாப்டுகளில் (எம்.எஃப்) டெர்மோஸ்கோபி மற்றும் வாழ்க்கைத் தரம் பற்றிய ஆய்வு மற்றும் ஆரம்பகால எம்.எஃப் இன் டெர்மோஸ்கோபியை பிளேக் சொரியாஸிஸ் (பிபி) மற்றும் டிஸ்காய்டு அரிக்கும் தோலழற்சியுடன் ஒப்பிடுதல்

பொருளின் பெயர்: _____ வயது: _____

i) மேற்கண்ட ஆய்வுக்காக _____ தேதியிட்ட தகவல் தாளை நான் படித்து புரிந்து கொண்டேன் என்பதையும் கேள்விகளைக் கேட்கும் வாய்ப்பு கிடைத்ததையும் நான் உறுதிப்படுத்துகிறேன். [ ]

(ii) ஆய்வில் நான் பங்கேற்பது தன்னார்வமானது என்பதையும், எந்தவொரு காரணத்தையும் தெரிவிக்காமல், எனது மருத்துவ கவனிப்பு அல்லது சட்ட உரிமைகள் பாதிக்கப்படாமலும் எந்த நேரத்திலும் திரும்பப் பெற எனக்கு சுதந்திரம் உள்ளது என்பதை நான் புரிந்துகொள்கிறேன். []

(iii) நடப்பு ஆய்வு மற்றும் நான் சம்பந்தப்பட்ட எந்தவொரு ஆராய்ச்சியையும் பொறுத்தவரை, எனது சுகாதார பதிவுகளைப் பார்க்க நெறிமுறைக் குழு மற்றும் ஒழுங்குமுறை அதிகாரிகளுக்கு எனது அனுமதி தேவையில்லை என்பதை நான் புரிந்துகொள்கிறேன். சோதனை. இந்த அணுகலை நான் ஒப்புக்கொள்கிறேன். இருப்பினும், மூன்றாம் தரப்பினருக்கு வெளியிடப்பட்ட அல்லது வெளியிடப்பட்ட எந்தவொரு தகவலிலும் எனது அடையாளம் வெளிப்படுத்தப்படாது என்பதை நான் புரிந்துகொள்கிறேன். [ ]

(iv) இந்த ஆய்விலிருந்து எழும் எந்தவொரு தரவையும் அல்லது முடிவுகளையும் பயன்படுத்துவதை கட்டுப்படுத்த மாட்டேன் என்று நான் ஒப்புக்கொள்கிறேன், அத்தகைய பயன்பாடு விஞ்ஞான நோக்கத்திற்காக மட்டுமே பயன்படுத்தப்படுகிறது [ ]

(vi) மேற்கண்ட ஆய்வில் பங்கேற்க ஒப்புக்கொள்கிறேன். [ ]

கையொப்பம் அல்லது கட்டைவிரல் எண்ணம்

கையொப்பமிட்டவரின் பெயர்: _____ தேதி: ___ / ___ / ____

புலனாய்வாளரின் கையொப்பம்: _____ தேதி: ____ / ____ / _____

ஆய்வு ஆய்வாளரின் பெயர்: _____

சாட்சியின் கையொப்பம் அல்லது கட்டைவிரல் எண்ணம்: _____

தேதி: ____ / ____ / _____

சாட்சியின் பெயர் மற்றும் முகவரி: _____

Informed consent- Bengali

তথ্য কনসেন্ট

অধ্যয়নের শিরোনাম: মাইকোসিস ফানগোইডস (এমএফ) এর ডার্মোস্কোপি এবং জীবন মানের বিষয়ে একটি গবেষণা এবং প্লেক সোরিয়াসিস (পিপি) এবং ডিস্কয়েড একজিমার সাথে প্রারম্ভিক এমএফ এর ডার্মোস্কপির তুলনা।

বিষয়ের নাম: _____ বয়স: _____

(i) আমি নিশ্চিত করি যে আমি উপরের অধ্যয়নের জন্য _____ তারিখের তথ্য পত্রটি পড়েছি এবং বুঝতে পেরেছি এবং প্রশ্ন জিজ্ঞাসার সুযোগ পেয়েছি। [ ]

(ii) আমি বুঝতে পারি যে গবেষণায় আমার অংশগ্রহণ স্বেচ্ছাসেবী এবং আমার চিকিত্সা যত্ন বা আইনগত অধিকার ক্ষতিগ্রস্থ না হয়ে আমি কোনও কারণ ছাড়াই যে কোনও সময় প্রত্যাহার করতে স্বাধীন [ ]

(iii) আমি বুঝতে পারি যে এথিক্স কমিটি এবং নিয়ন্ত্রক কর্তৃপক্ষের বর্তমান অধ্যয়ন এবং এর সাথে সম্পর্কিত যে আরও গবেষণা চালানো যেতে পারে, উভয়ই আমার স্বাস্থ্য রেকর্ডগুলি দেখার জন্য আমার অনুমতির প্রয়োজন হবে না, এমনকি আমি যদি এ থেকে সরে যাই তবে বিচার। আমি এই অ্যাক্সেস সম্মত। তবে আমি বুঝতে পারি যে তৃতীয় পক্ষগুলিতে প্রকাশিত বা প্রকাশিত কোনও তথ্যে আমার পরিচয় প্রকাশিত হবে না। [ ]

(iv) আমি এই গবেষণা থেকে উত্পন্ন কোনও তথ্য বা ফলাফলের ব্যবহারকে সীমাবদ্ধ না রাখার বিষয়ে সম্মত হয়েছি তবে এই ধরনের ব্যবহার কেবলমাত্র বৈজ্ঞানিক উদ্দেশ্যে (গুলি) [ ]

(v) স্বাস্থ্য পেশাজীবীরা শিক্ষা ও প্রশিক্ষণের জন্য এবং কাগজ বা বৈদ্যুতিন স্বাস্থ্য সংক্রান্ত প্রকাশনাগুলিতে ব্যবহার করার জন্য আমার নেওয়া সমস্ত মেডিকেল চিত্রের সাথে আমি সম্মতি জানাই [ ]

(vi) আমি উপরের গবেষণায় অংশ নিতে সম্মত। []

সাবজেক্টের স্বাক্ষর বা থাম্ব ইম্প্রেশন

স্বাক্ষরকারীর নাম: _____ তারিখ: ____ / ____ / _____

তদন্তকারী এর স্বাক্ষর: _____ তারিখ: _____ / _____ / _____

অধ্যয়ন তদন্তকারী এর নাম: _____

সাক্ষীর স্বাক্ষর বা আঙ্গুলের ছাপ: _____

তারিখ: _____ / _____ / _____

সাক্ষীর নাম ও ঠিকানা: _____

Informed consent- Telugu

సమాచారం కన్సెంట్

అధ్యయనం శీర్షిక: మైకోసిస్ ఫంగోయిడ్స్ (MF) లో డెర్మోస్కోపీ మరియు జీవన నాణ్యతపై అధ్యయనం మరియు ప్రారంభ MF యొక్క డెర్మోస్కోపీని ప్లేక్ సోరియాసిస్ (పిపి) మరియు డిస్కోయిడ్ తామరతో పోల్చడం

విషయం పేరు: _____ వయస్సు: _____

(i) పై అధ్యయనం కోసం _____ నాటి సమాచార పత్రాన్ని నేను చదివాను మరియు అర్థం చేసుకున్నాను మరియు ప్రశ్నలు అడిగే అవకాశం ఉందని నేను ధృవీకరిస్తున్నాను. [ ]

(ii) అధ్యయనంలో నా భాగస్వామ్యం స్వచ్ఛందంగా ఉందని మరియు నా వైద్య సంరక్షణ లేదా చట్టపరమైన హక్కులు ప్రభావితం కాకుండా, ఏ కారణం చెప్పకుండా, ఎప్పుడైనా ఉపసంహరించుకునే స్వేచ్ఛ నాకు ఉందని నేను అర్థం చేసుకున్నాను. [ ]

(iii) ప్రస్తుత అధ్యయనానికి సంబంధించి నా ఆరోగ్య రికార్డులను చూడటానికి ఎథిక్స్ కమిటీ మరియు రెగ్యులేటరీ అధికారులకు నా అనుమతి అవసరం లేదని నేను అర్థం చేసుకున్నాను మరియు దానికి సంబంధించి నిర్వహించబడే ఏవైనా పరిశోధనలు విచారణ. నేను ఈ ప్రాప్యతను అంగీకరిస్తున్నాను. ఏదేమైనా, మూడవ పార్టీలకు విడుదల చేసిన లేదా ప్రచురించబడిన ఏ సమాచారంలోనైనా నా గుర్తింపు బయటపడదని నేను అర్థం చేసుకున్నాను. [ ]

(iv) అటువంటి ఉపయోగం శాస్త్రీయ ప్రయోజనం (ల) కోసం మాత్రమే అందించినట్లయితే ఈ అధ్యయనం నుండి ఉత్పన్నమయ్యే ఏ డేటా లేదా ఫలితాల వాడకాన్ని పరిమితం చేయకూడదని నేను అంగీకరిస్తున్నాను [ ]

(v) విద్య మరియు శిక్షణ కోసం ఆరోగ్య నిపుణులు ఉపయోగించటానికి మరియు కాగితం లేదా ఎలక్ట్రానిక్ ఆరోగ్య ప్రచురణలలో ఉపయోగించటానికి నా నుండి తీసిన అన్ని వైద్య చిత్రాలను నేను అంగీకరిస్తున్నాను [ ]

(vi) పై అధ్యయనంలో పాల్గొనడానికి నేను అంగీకరిస్తున్నాను. [ ]

విషయం యొక్క సంతకం లేదా బొటనవేలు ముద్ర

సంతకం చేసిన వ్యక్తి పేరు: _____ తేదీ: ____ / ____ / _____

పరిశోధకుడి సంతకం: _____ తేదీ: _____ / _____ / _____

స్టడీ ఇన్వెస్టిగేటర్ పేరు: _____

సాక్షి యొక్క సంతకం లేదా బొటనవేలు ముద్ర: _____

తేదీ: _____ / _____ / _____

సాక్షి పేరు & చిరునామా: _____

Informed consent- Malayalam

<u>സമ്മതപത്രം</u>

പഠനശീർഷകം: മൈക്കോസിസ്റ്റംഗോയിഡസ് (എംഎഫ്) രോഗത്തിലെ ഡെർമോസ്കോപ്പി, ജീവിതനിലവാരം എന്നിവയെക്കുറിച്ചുള്ള പഠനവും ഏർലി എംഎഫിന്റെ ഡെർമോസ്കോപ്പിയെ പ്ലേക്ക് സോറിയാസിസ് (പിപി), ഡിസ്കോയിഡ് എക്സിമ എന്നീ രോഗങ്ങളുമായി താരതമ്യം ചെയ്യുന്നു.

പങ്കെടുക്കുന്നയാളുടെ പേര്: _____പ്രായം:_____

(i)) മുകളിലുള്ള പഠനത്തിനായി _____ തീയതിയിലുള്ള വിവര ഷീറ്റ്ഞാൻ വായിക്കുകയും മനസിലാക്കുകയും ചെയ്തുവെന്നും ചോദ്യങ്ങൾ ചോദിക്കാനുള്ള അവസരം ലഭിച്ചിട്ടുണ്ടെന്നും ഞാൻ സ്ഥിരീകരിക്കുന്നു.[ ]
(ii) പഠനത്തിലെ എന്റെ പങ്കാളിത്തം സ്വമേധയാഉള്ളതാണെന്നും ഒരു കാരണവും നൽകാതെ, എന്റെ വൈദ്യപരിചരണമോ നിയമപരമായ അവകാശങ്ങളോ ബാധിക്കാതെ അത് എപ്പോൾ വേണമെങ്കിലും പിൻവലിക്കാൻ എനിക്ക്സ്വാതന്ത്ര്യമുണ്ടെന്നും ഞാൻ മനസ്സിലാക്കുന്നു.[ ]
(iii) നിലവിലെ പഠനത്തെക്കുറിച്ചും അതുമായി ബന്ധപ്പെട്ട്കൂടുതൽ ഗവേഷണങ്ങളെക്കുറിച്ചും എന്റെ ആരോഗ്യരേഖകൾ നോക്കാൻ എത്തിക്സ്കമ്മിറ്റിക്കും റെഗുലേറ്ററി അധികാരികൾക്കും എന്റെ അനുമതി ആവശ്യമില്ലെന്ന്ഞാൻ മനസ്സിലാക്കുന്നു. പഠനത്തിൽ നിന്ന്ഞാൻ പിന്മാറിയാലും ഇത്നിലനിൽക്കുമെന്നും ഞാൻ മനസ്സിലാക്കുന്നു ഇത് ഞാൻ അംഗീകരിക്കുന്നു. എന്നിരുന്നാലും, മൂന്നാം കക്ഷികൾക്ക്പുറത്തുവിട്ടതോ പ്രസിദ്ധീകരിച്ചതോ ആയ ഒരു വിവരത്തിലും എന്റെ സ്വകാര്യ വിവരങ്ങൾ വെളിപ്പെടില്ലെന്ന് ഞാൻ മനസ്സിലാക്കുന്നു.[ ]
(iv) ഈ പഠനത്തിൽ നിന്ന് ഉണ്ടാകുന്ന ഏതെങ്കിലും വിവരങ്ങളുടെയോ ഫലങ്ങളുടെയോ ഉപയോഗം അത്തരമൊരു ഉപയോഗം ശാസ്ത്രീയ ആവശ്യങ്ങൾക്കുമാത്രമാണെങ്കിൽ നിയന്ത്രിക്കില്ലെന്ന്ഞാൻ സമ്മതിക്കുന്നു.[ ]
(v) എന്റെ എല്ലാ മെഡിക്കൽ ചിത്രങ്ങളും ആരോഗ്യ പ്രൊഫഷണലുകൾ വിദ്യാഭ്യാസത്തിനും പരിശീലനത്തിനുമായി ഉപയോഗിക്കുന്നതിനും പേപ്പർ അല്ലെങ്കിൽ ഇലക്ട്രോണിക് ആരോഗ്യ പ്രസിദ്ധീകരണങ്ങളിൽ ഉപയോഗിക്കുന്നതിനും ഞാൻ സമ്മതിക്കുന്നു []
(v) മുകളിൽ പറഞ്ഞ പഠനത്തിൽ പങ്കെടുക്കുന്നതിന്ഞാൻ സമ്മതിക്കുന്നു.[ ]

രോഗിയുടെ ഒപ്പ് അല്ലെങ്കിൽ വിരലടയാളം

ഒപ്പിട്ടയാളുടെ പേര്: _____ തീയതി: ___ / ___ / ____

അന്വേഷകന്റെ ഒപ്പ്: _____ തീയതി: ____ / ____ / _____

പഠന അന്വേഷകന്റെ പേര്: _____

സാക്ഷിയുടെ ഒപ്പ് അല്ലെങ്കിൽ വിരലടയാളം: _____

തീയതി: ____ / ____ / _____

സാക്ഷിയുടെ പേരും വിലാസവും: _____

ANNEXURE 4: PROFORMA

Serial no.-

Date:

Name- Hospital no.-

Age-

Address-

Contact number-

Gender- 1. Male 2. Female

Education-

Occupation-

Locality- 1. Urban 2. Rural

FINAL DIAGNOSIS:

Mycosis fungoides Yes/No

Plaque psoriasis Yes/No

Discoid Eczema Yes/No

HISTORY

Age of onset of the disease (in years):

Duration of disease (in months):

Duration between symptom onset and diagnosis(months/years):

History of itchy oozy lesions: YES/NO

History of itchy scaly lesions over extensor surfaces YES/NO

Any seasonal variations: YES/NO

If yes what: Summer/Winter

Any history of atopy: YES/NO

History of similar lesions in past: YES/NO

Histopathology confirmed: YES/NO

Any topical/systemic treatment taken during the last month YES/NO

If yes, what:

a) Topical YES/NO

b) Phototherapy YES/NO

c) Systemic YES/NO

History of use of immunosuppressant YES/NO

If yes, what

a) Topical immunomodulators YES/NO

Duration of application

b) Topical Steroid: YES/NO

Duration of application

c) Systemic Immunosuppressants: YES/NO

d) Chemotherapy YES/NO

If yes, what:

History of any malignancies in past: YES/NO

Family history of similar skin lesions: YES/NO

Other underlying skin conditions YES/NO

If yes, what condition:

Any systemic complaints YES/NO

If yes, what

EXAMINATION:

Characteristics of lesions from three representative sites:

LESION 1:

Site of the lesion	Size of the lesion(cms)	Corresponding morphology (Patch/Plaque/Tumor)	Exposed/Unexposed
Head			
Neck			
Trunk			
Upper limbs			
Lower limbs			

LESION 2 :

Site of the lesion	Size of the lesion(cms)	Corresponding morphology (Patch/Plaque/Tumor)	Exposed/Unexposed
Head			
Neck			
Trunk			
Upper limbs			
Lower limbs			

LESION 3:

Site of the lesion	Size of the lesion(cms)	Corresponding morphology (Patch/Plaque/Tumor)	Exposed/Unexposed
Head			
Neck			
Trunk			
Upper limbs			
Lower limbs			

Body surface area (%):

<10%

>/=10%

Erythroderma YES/NO

Auspitz sign: YES/NO

Nail involvement: YES/NO

Arthritis: YES/NO

If yes what

PASI score: Mild/Moderate/Severe

EASI score: Mild/ Moderate/Severe/Very severe

SYSTEMIC EXAMINATION:

Lymphadenopathy YES/NO

Hepatomegaly YES/NO

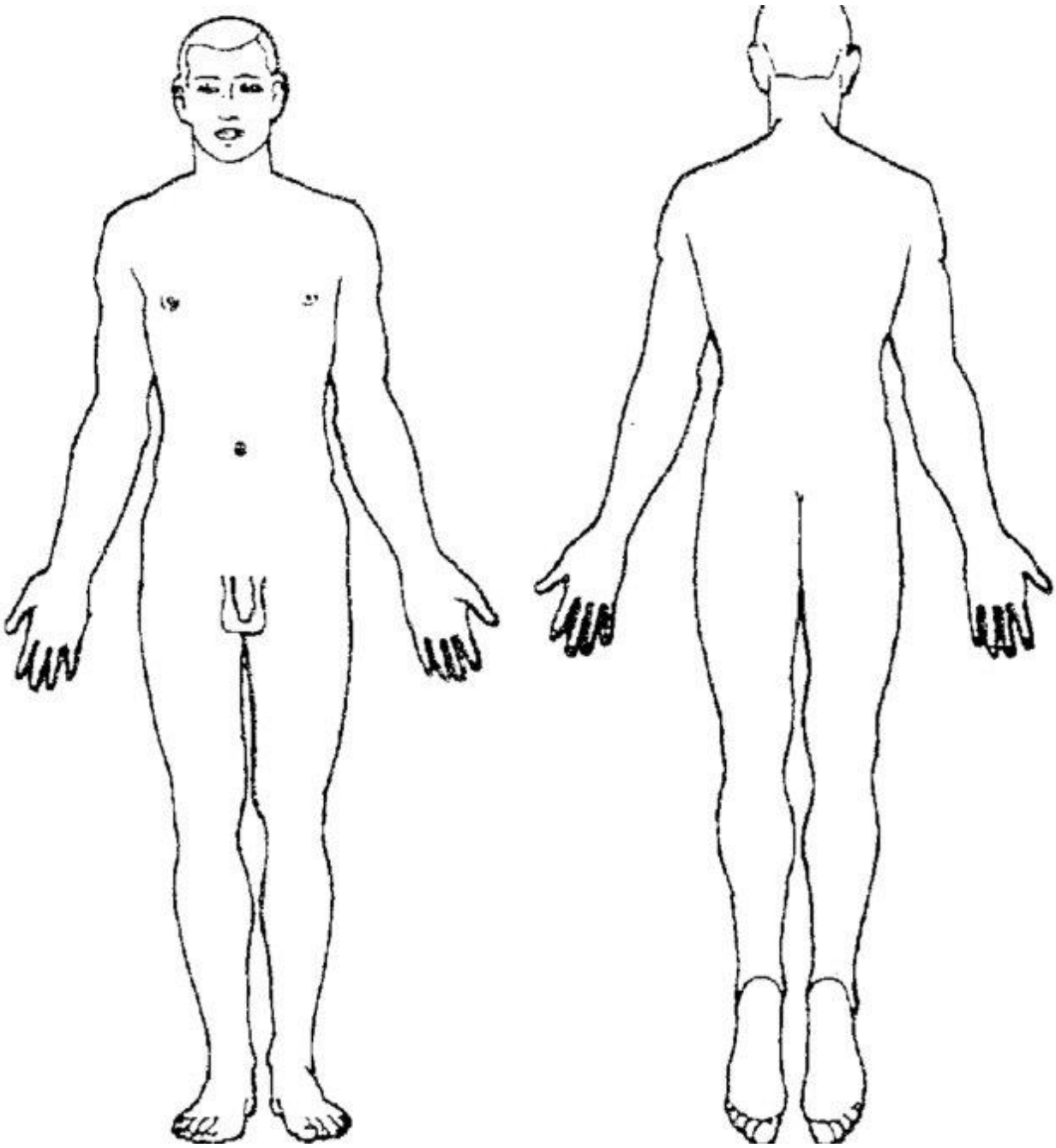
Splenomegaly YES/NO

STAGING (for MF)

Stage	**T (tumour)**	**N (node)**	**M (metastasis)**	**B (blood)**
IA	T1a/b	N0	M0	B0–1
IB	T2a/b	N0	M0	B0–1
IIA	T1–2	N1	M0	B0–1
IIB	T3	N0–2	M0	B0–1
IIIA	T4	N0–2	M0	B0
IIIB	T4	N0–2	M0	B1
IVA1	T1–4	N0-2	M0	B2
IVA2	T1–4	N3	M0	B0–2
IVB	T1–4	N0–3	M1	B0–2

STAGE:

BODY CHART



DERMOSCOPY:

1. Regular-appearing white structureless areas

	Lesion 1	Lesion 2	Lesion 3
Regular-appearing white structureless areas			

2. Dotted vessels

	Lesion 1	Lesion 2	Lesion 3
Dotted vessels			

3. Fine short linear vessels

	Lesion 1	Lesion 2	Lesion 3
Fine short linear vessels			

4. Red globules

	Lesion 1	Lesion 2	Lesion 3
Globules			

5. Glomerular vessels

	Lesion 1	Lesion 2	Lesion 3
Glomerular vessels			

6. Ring/ Hairpin-like vessels

	Lesion 1	Lesion 2	Lesion 3
Ring/ Hairpin-like vessels			

7. Spermatozoa-like structures

	Lesion 1	Lesion 2	Lesion 3

Spermatozoa like structures			

8. Y- shaped arborizing vessels

	Lesion 1	Lesion 2	Lesion 3
Y- shaped arborizing vessels			

9. Vessel arrangement

	Lesion 1	Lesion 2	Lesion 3
a) Regular			
b) Clustered			
c) Patchy			

10. White scales

	Lesion 1	Lesion 2	Lesion 3
White scales			

11. Yellow scales

	Lesion 1	Lesion 2	Lesion 3
Yellow scales			

12. Scale distribution

	Lesion 1	Lesion 2	Lesion 3
a) Patchy			
b) Peripheral			
c) Diffuse			

13. Orange-yellow patchy areas

	Lesion 1	Lesion 2	Lesion 3
Orange yellowish patchy areas			

14. Background colour

	Lesion 1	Lesion 2	Lesion 3

a) Light red			
b) Dull red			
c) Brown			

15. Yellow crusts

	Lesion 1	Lesion 2	Lesion 3
Yellow crusts			

16. Perifollicular accentuation

	Lesion 1	Lesion 2	Lesion 3
Perifollicular accentuation			

17. Comedo-like openings

	Lesion 1	Lesion 2	Lesion 3
Comedo like openings			

Histopathological features:

Atypical irregular lymphoid cells within the epidermis YES/NO

Lymphocytes disposed as solitary units and aligned in the basal layer of the epidermis YES/NO

Lymphohistiocytic infiltrate surrounding the vessels YES/NO

Lack of spongiosis of the epidermis: YES/NO

Psoriasiform epidermal hyperplasia YES/NO

Immunohistochemistry: positive for CD3, CD4 and negative for CD7 YES/NO

ANNEXURE 5: DLQI QUESTIONNAIRE

DERMATOLOGY LIFE QUALITY INDEX

DLQI

Hospital No: Date:
Name: Score:
Address: Diagnosis:

The aim of this questionnaire is to measure how much your skin problem has affected your life OVER THE LAST WEEK. Please tick ☑ one box for each question.

1.	Over the last week, how **itchy**, **sore**, **painful** or **stinging** has your skin been?	Very much A lot A little Not at all	❒ ❒ ❒ ❒	
2.	Over the last week, how **embarrassed** or **self conscious** have you been because of your skin?	Very much A lot A little Not at all	❒ ❒ ❒ ❒	
3.	Over the last week, how much has your skin interfered with you going **shopping** or looking after your **home** or **garden**?	Very much A lot A little Not at all	❒ ❒ ❒ ❒	Not relevant ❒
4.	Over the last week, how much has your skin influenced the **clothes** you wear?	Very much A lot A little Not at all	❒ ❒ ❒ ❒	Not relevant ❒
5.	Over the last week, how much has your skin affected any **social** or **leisure** activities?	Very much A lot A little Not at all	❒ ❒ ❒ ❒	Not relevant ❒
6.	Over the last week, how much has your skin made it difficult for you to do any **sport**?	Very much A lot A little Not at all	❒ ❒ ❒ ❒	Not relevant ❒
7.	Over the last week, has your skin prevented you from **working** or **studying**?	Yes No	❒ ❒	Not relevant ❒
	If "No", over the last week how much has your skin been a problem at **work** or **studying**?	A lot A little Not at all	❒ ❒ ❒	
8.	Over the last week, how much has your skin created problems with your **partner** or any of your **close friends** or **relatives**?	Very much A lot A little Not at all	❒ ❒ ❒ ❒	Not relevant ❒
9.	Over the last week, how much has your skin caused any **sexual difficulties**?	Very much A lot A little Not at all	❒ ❒ ❒ ❒	Not relevant ❒
10.	Over the last week, how much of a problem has the **treatment** for your skin been, for example by making your home messy, or by taking up time?	Very much A lot A little Not at all	❒ ❒ ❒ ❒	Not relevant ❒

Please check you have answered EVERY question. Thank you.

ANNEXURE 6: PSORIASIS ACTIVITY AND SEVERITY INDEX (PASI) SCORE SHEET

Scoring key

Score	**0**	**1**	**2**	**3**	**4**	**5**	**6**
Erythema Induration Scaling	None	Slight	Moderate	Severe	Very Severe		
Area %	0	<10	10–29	30–49	50–69	70–89	90–100

	Head	Upper limbs	Trunk	Lower limbs
Erythema				
Induration				
Scaling				
Sum (E+I+S)				
Area score				
Sum x Area				
Correction	x 0.1	x 0.2	x 0.3	x 0.4
		+	+	+	=	

ANNEXURE 7: ECZEMA AREA AND SEVERITY INDEX (EASI) SCORE SHEET

Body region	Erythema	Edema/	Excoriation	Lichenification	Area score	Multiplier	Score
Head/neck							
Trunk							
Upper extremities							
Lower extremities							
FINAL EASI SCORE (0-72)							

ANNEXURE 8: DATA SHEET

	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	age	address	contno	gender	educat	occupat	localit	mycosis	dlqi	plaque	discoid	onsetage	disedur	onsetdiag	itchoozy	itchscal	seasvari	variyes	atopy
2	46	Badi Khan	6.2E+09	1	BA	Businessm	1	1	22	2	2	36	120	120	2	2	2	2	2
3	72	H-48,Ponv	9.44E+09	1	MA	Retired Gc	1	1	13	2	2	69	30	30	2	2	1	2	2
4	44	Vellore	9E+09	1	10th stanc	Staff in CN	1	2		1	2	20	288	12	2	1	1	2	1
5	80	1/115,Che	9.99E+09	1	12th stanc	Pastor	2	2		1	2	73	84	84	2	1	2		2
6	31	3/15 Secoi	9.84E+09	1	MD	Doctor	1	2		2	1	30	12	12	1	2	2	2	2
7	36	Ukhra Roa	6.29E+09	1	10th stanc	Driver	2	2		2	1	33	36	12	1	2	2		1
8	18	303/111 S	8.06E+09	1	12th stanc	Student	2	1	1	2	2	11	48	12	2	2	2		2
9	28	8 NO Roac	7.07E+09	1	9th stand	Farmer	2	1	27	2	2	24	48	12	1	2	2	2	2
10	45	Pullambat	8.14E+09	1	Graduatio	Business	2	1	2	2	2	41	48	15	2	2	2	2	2
11	45	5/179, MA	9.57E+09	2	MD	Doctor-Gy	1	1	16	2	2	45	3	3	2	2	2		1
12	41	4/276,M N	8.12E+09	1	10th stanc	Metal wor	2	1	1	2	2	25	180	48	2	2	1	2	2
13	44	Etharool,C	9.05E+09	2	12th stanc	Home mal	1	1	3	2	2	34	132	1	2	2	2		2
14	46	No43A,KA	7.37E+09	1	10th	Hotel emp	1	1	1	2	2	39	84	48	2	2	2		2
15	22	Dakshin B	7.91E+09	2	Post gradı	Student	1	2		2	1	19	36	12	1	2	2		1
16	34	NAGRI,KH	8.97E+09	1	Graduatio	Private fac	1	2		2	1	31	36	24	1	2	2		1
17	42	202,Block	9.91E+09	2	Graduatio	Home mal	1	2		1	2	38	42	12	2	1	2		2
18	43	41 ANNAN	9.89E+09	2	10th stanc	Home mal	1	2		2	1	41	24	24	1	2	2		1
19	65	MAHAPRC	8.51E+09	1	Graduatio	Retired Ra	1	2		2	1	64	6	1	1	2	2		2
20	55	55/1 OMC	9.89E+09	2	3rd stand	Home mal	1	2		2	1	54	5	1	1	2	2	2	2
21	39	10, MOTH	9.83E+09	1	MBA	Governme	1	2		1	2	32	84	12	1	1	1	2	2
22	19	2-24,JAYAI	9.4E+09	1	CA Studen	Student	1	2		1	2	10	108	12	2	1	1	2	2
23	51	NARAURA	9.77E+09	2	10th stanc	Home Ma	2	2		1	2	51	2	2	2	1	2		2
24	37	6-26, R.F.F	9.95E+09	2	Graduatio	Teacher	2	2		1	2	36	8	1	2	1	2		2
25	31	MAHISAD,	6.3E+09	2	BA	Home mal	2	2		1	2	18	156	12	2	1	1	2	2
26	38	EKTESWAI	9.48E+09	2	Graduatio	Home Ma	2	2		1	2	28	120	24	2	1	1	2	2

	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	similesi	histopat	topisyst	topiyes	immuno	topimmu	topister	systimmu	chemot	malig	fskinles	skincond	skinyes	systcomp	compyes	headszl1	headsl1b	headcml1	headl1
2	2	2	2		1	2	1	1	2	2	2	2		1	Loss of weight -10kg in past 2 months				
3	2	2	2		2	2	2	2	2	2	2	2		2					
4	2	2	2		1	2	1	1	2	2	1	2		2					
5	2	2	2		2	2	2	2	2	2	2	2		2					
6	2	2	2		2	2	1	2	2	2	2	2		2					
7	2	2	2		2	2	1	2	2	2	2	2		2					
8	2	2	2		1	2	1	1	2	2	2	2		2					
9	2	2	2		2	2	2	2	1	2	2	2		2					
10	2	2	2		1	2	2	1	1	2	2	2		2					
11	2	2	2		2	2	2	2	2	2	2	2		2					
12	2	2	1	3	1	1	1	1	1	2	2	2		2					
13	2	2	2		2	2	2	2	2	2	2	2		2					
14	2	2	1	2	2	2	2	2	2	2	2	2		2					
15	2	2	2		2	2	1	2	2	2	1	2		2					
16	2	2	2		2	2	2	2	2	2	1	2		2					
17	2	2	2		2	2	2	2	2	2	2	2		2					
18	2	2	2		2	2	2	2	2	2	2	2		2					
19	2	2	2		2	2	1	2	2	2	2	2		2					
20	2	2	2		2	2	1	2	2	2	2	2		2					
21	2	2	2		2	2	2	2	2	2	1	2		2					
22	2	2	2		2	2	1	1	2	2	2	2		2					
23	2	2	2		2	2	2	2	2	2	2	2		2					
24	2	2	2		1	2	2	1	2	2	2	2		2					
25	2	2	2		2	2	2	2	2	2	2	2		2					
26	2	2	2		2	2	1	2	2	2	1	2		2					

	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI
1	neckszl1	necksl1b	neckcml1	neckl1	trunszl1	trunsl1b	truncml1	trunl1	upszl1	upsl1b	upcml1	upll1	lwlszl1	lwlsl1b	lwlcml1	lwll1	examl2	headszl2	headsl2b
2					5	4	2	2									1		
3									0.5	0.5	2	1					1		
4													3	2	2	2	1		
5					2	3	2	2									1		
6													4	3	2	2	1		
7													3	1	2	1	1		
8									8	7	2	2					1		
9					7	4	2	2									1		
10					3	2	1	2									1		
11													3	2	2	2	1		
12					7	5	2	2									1		
13													3	2	1	2	1		
14					4	4	1	2									1		
15	4	2	2	1													1		
16									3	2	2	1					1		
17													5	3	2	2	1		
18													4	3	2	2	1		
19					6	6	1	2									1		
20													3	3	2	2	1		
21					2	2	2	2									1		
22					3	3	2	2									1		
23									2	2	2	1					1		
24													2	1	2	2	1		
25									15	4	2	1					1		
26													3	2	2	2	1		

	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB
1	headcml2	headl2	neckszl2	necksl2b	neckcml2	neckl2	trunszl2	trunsl2b	truncml2	trunl2	uplszl2	uplsl2b	uplcml2	upll2	lwlszl2	lwlsl2b	lwlcml2	lwll2	examl3
2							6	4	2	2									1
3							2	2	2	2									1
4															2	2	2	2	1
5															15	10	2	2	1
6															1	1	2	2	1
7															4	2	2	1	1
8											4	4	2	1					1
9							14	16	2	2									1
10															8	7	1	2	1
11															2	2	1	2	1
12															5	5	2	2	1
13											3	2	1	1					1
14							4	3	1	2									1
15			2	2	2	1													1
16			3	1	2	1													1
17															6	2	2	1	1
18															3	2	2	2	1
19															10	5	1	2	1
20															1	1	2	1	1
21							1	1	2	2									1
22							3	3	2	2									1
23											3	2	2	1					1
24															1	1	2	1	1
25															10	5	2	2	1
26															2	2	2	2	1

	CC	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU
1	headszl3	headsl3b	headcml3	headl3	neckszl3	necksl3b	neckcml3	neckl3	trunszl3	trunsl3b	truncml3	trunl3	uplszl3	uplsl3b	uplcml3	upll3	lwlszl3	lwlsl3b	lwlcml3
2													4	4	2	1			
3									1	1	2	2							
4									1	1	2	2							
5																	4	2	2
6																	2	2	2
7																	2	2	2
8																	6	4	2
9													4	4	2	2			
10																	5	3	2
11													3	1	1	2			
12																	4	4	2
13													4	4	1	1			
14																	1	1	1
15																	3	0.5	2
16					2	1	2	1											
17													4	3	2	1			
18													2	2	2	1			
19																	11	6	1
20																	2	1	2
21	4	3	2	1															
22													4	2	2	2			
23																	2	1	2
24																	2	1	2
25																	16	9	2
26																	4	3	2

	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN
1	lwll3	bsa	erythr	auspitz	nail	arthrit	artyes	pasiscr	easiscr	lymphad	hepatom	splenom	stagmf	l1reg	l2reg	l3reg	l1dv	l2dv	l3dv
2		2	1	2	2	2				1	2	2	5	1	1	1	1	1	1
3		2	1	2	2	2				2	2	2	4	1	2	2	1	1	1
4		2	2	1	1	2		9.3		2	2	2		2	2	2	1	1	1
5	2	2	2	1	2	2		10		2	2	2		2	2	2	1	1	1
6	1	1	2	2	2	2			2	2	2	2		2	2	2	1	1	1
7	1	1	2	2	2	2			1.2	2	2	2		2	2	2	1	1	1
8	2	2	2	2	2	2				2	2	2	2	1	1	1	2	1	1
9		2	2	2	2	2				1	2	2	4	1	1	1	1	1	1
10	2	2	2	2	2	2				2	2	2	2	2	2	2	1	1	1
11		2	2	2	2	2				2	2	2	2	2	2	2	2	2	1
12	2	2	2	2	2	2				2	2	2	4	1	1	1	1	1	1
13		1	2	2	2	2				2	2	2	1	2	2	2	2	2	2
14	2	2	2	2	2	2				2	2	2	2	1	1	2	1	1	2
15	2	1	2	2	2	2			2.1	2	2	2		2	2	2	1	1	1
16		1	2	2	2	2			1.4	2	2	2		2	2	2	1	1	1
17		1	2	1	2	2		2.2		2	2	2		2	2	2	1	1	2
18		1	2	2	2	2			4.3	2	2	2		2	2	2	1	1	1
19	2	1	2	2	2	2			2.6	2	2	2		2	2	2	1	2	2
20	2	1	2	2	2	2			2.4	2	2	2		2	2	2	1	1	2
21		1	2	1	2	2		2		2	2	2		2	2	2	1	1	1
22		2	2	1	2	2		13.9		2	2	2		2	2	2	1	1	1
23	1	1	2	1	2	2		3.4		2	2	2		2	2	2	1	1	1
24	2	1	2	1	2	2		7.6		2	2	2		2	2	2	1	1	1
25	2	2	2	1	1	2		16.2		2	2	2		2	2	2	1	1	1
26	1	1	2	1	2	2		2		2	2	2		2	2	2	1	1	1

	DO	DP	DQ	DR	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	EE	EF	EG
1	l1fine	l2fine	l3fine	l1dlv	l2dlv	l3dlv	l1glob	l2glob	l3glob	l1glom	l2glom	l3glom	l1hair	l2hair	l3hair	l1sper	l2sper	l3sper	l1yv
2	1	1	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	2	2
3	2	1	1	2	1	1	2	2	2	2	1	1	2	2	2	2	1	1	2
4	2	2	2	2	2	2	1	1	1	1	1	1	1	2	2	2	2	2	2
5	2	2	2	2	2	2	1	1	1	2	2	2	2	2	2	2	2	2	2
6	2	2	2	2	2	2	1	1	1	2	2	2	2	2	2	2	2	2	2
7	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2
8	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
9	1	1	1	1	2	1	1	1	1	1	1	2	1	1	1	1	1	1	2
10	1	1	1	2	2	2	2	2	2	1	1	1	1	2	2	2	2	1	1
11	1	1	1	2	2	2	1	2	1	2	2	2	2	2	2	2	2	1	1
12	2	1	1	2	2	2	1	1	1	1	1	1	1	2	1	2	2	2	2
13	1	1	1	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2
14	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
15	2	1	1	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2
16	2	2	2	2	2	2	1	1	1	1	2	2	2	2	2	2	2	2	2
17	2	2	2	2	2	2	1	1	1	1	2	2	2	2	2	2	2	2	2
18	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
19	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
20	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
21	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	2	2
22	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	2	2	2	2
23	2	2	2	2	2	2	1	1	1	1	1	1	2	1	2	2	2	2	2
24	2	2	2	2	2	2	1	1	1	2	2	2	2	2	2	2	2	2	2
25	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	2	2	2	2
26	1	1	2	2	2	2	2	2	2	1	1	1	2	2	2	2	2	2	2

	EH	EI	EJ	EK	EL	EM	EN	EO	EP	EQ	ER	ES	ET	EU	EV	EW	EX	EY	EZ
1	l2yv	l3yv	l1va	l2va	l3va	l1white	l2white	l3white	l1yelw	l2yelw	l3yelw	l1scale	l2scale	l3scale	l1orang	l2orang	l3orang	l1color	l2color
2	1	2	2	2	2	1	1	1	2	2	2	1	1	1	2	1	1	2	2
3	1	2	2	2	2	1	1	1	2	2	2	1	1	1	1	2	1	1	1
4	2	2	1	1	1	1	1	1	1	1	2	3	2	3	2	2	2	1	1
5	2	2	1	1	1	1	1	1	1	1	1	3	3	3	2	2	2	1	1
6	2	2	3	3	3	1	1	1	1	1	1	1	1	1	2	2	2	3	3
7	2	2	3	3	3	1	1	1	1	1	1	1	1	1	2	2	2	2	2
8	2	2		2	3	1	1	1	1	2	1	3	1	1	1	1	1	2	3
9	2	1	2	2	2	1	1	1	1	1	1	1	1	1	1	2	2	1	1
10	1	1	2	2	2	2	2	1	2	2	2			1	1	1	1	3	3
11	2	2	3	3	3	1	1	1	2	2	2	1	1	1	1	1	1	2	2
12	2	2	3	3	3	1	1	1	1	1	1	1	1	1	2	2	2	1	1
13	2	1	3	3	3	2	2	2	2	2	2				1	1	2	3	3
14	2	2	2	2		1	1	1	2	2	2	1	1	1	1	1	1	3	3
15	2	2	3	3	3	1	1	1	2	2	2	1	1	1	2	2	2	1	1
16	2	2	3	3	3	1	1	1	2	2	2	1	1	1	2	2	2	2	3
17	2	2	1	1	3	1	1	1	1	1	1	3	3	3	2	2	2	1	1
18	2	2	3	3	3	1	1	1	1	1	1	1	1	1	2	2	2	3	3
19	2	2	3			1	1	1	2	2	2	2	2	1	2	2	2	3	2
20	2	2	3	3		1	1	1	1	1	1	1	1	1	2	2	2	2	2
21	2	2	1	1	1	1	1	1	2	1	1	3	3	1	2	2	2	3	1
22	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1
23	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1
24	2	2	1	1	1	1	1	1	2	2	1	1	1	1	2	2	2	1	1
25	2	2	1	1	1	1	1	1	2	2	2	1	3	1	2	2	2	1	1
26	2	2	1	1	1	1	1	1	1	2	2	3	3	3	2	2	2	1	1

	EZ	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ	FK	FL	FM	FN	FO	FP
1	l2color	l3color	l1yelcr	l2yelcr	l3yelcr	l1perif	l2perif	l3perif	l1comed	l2comed	l3comed	lympcel	lympepi	lympvess	sponepi	psorepi	cd347
2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	2	1
3	1	1	1	2	1	2	2	2	2	2	2	1	1	1	1	1	1
4	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
5	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
6	3	3	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
7	2	2	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
8	3	1	2	2	2	2	2	2	2	2	2	1	1	1	2	1	1
9	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1
10	3	3	2	2	2	2	2	2	2	2	2	1	1	1	2	1	1
11	2	3	2	2	2	2	2	2	2	2	2	1	1	1	2	2	1
12	1	1	2	2	2	2	2	2	2	2	2	1	1	1	2	1	1
13	3	3	2	2	2	2	2	2	2	2	2	1	1	1	1	2	1
14	3	3	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1
15	1	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
17	1	3	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
18	3	1	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2
19	2	3	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
20	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
21	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
22	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
23	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
24	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
25	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
26	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
27	33	NO:3/346	9.6E+09	1	Graduatio	Finance	1	2		1	2	32	8	1	2	1	2		1
28	44	MAHESPU	8.59E+09	1	6th standa	Vegetable	2	2		1	2	35	108	6	2	1	1	2	2
29	40	KALINAGA	9.73E+09	2	10th stanc	Home Ma	2	1	4	2	2	29	180	132	2	2	2	2	2
30	29	BAHARGR	8.44E+09	1	LLM	Lawyer	1	1	7	2	2	22	84	24	2	2	2	2	2
31	33	BANDIVAN	9E+09	1	B Tech	Software E	1	1	4	2	2	31	24	12	2	1	2	2	2
32	55	CHARKAK/	8.27E+09	1	10th stanc	Businesma	2	2		1	2	48	84	12	2	1	1	2	2
33	43	BAJANAI K	9.68E+09	1	9th standa	Tank oper	1	2		1	2	43	5	5	2	1	2		2
34	41	7B,DPLUS	9.45E+09	1	MSc	Governme	1	2		1	2	27	168	12	2	1	1	2	1
35	54	Khatkadi,E	6.3E+09	1	BA	Business	2	2		1	2	51	36	12	2	1	1		2
36	29	CATHOLIC	9.5E+09	1	Graduatio	Priest	1	2		2	1	5	300	60	1	2	2		1
37	18	143/26 KA	9.87E+09	1	MBBS Stu	Student	1	2		1	2	15	36	12	2	1	2		2
38	68	BIJPUR,BA	9.85E+09	1	10th stanc	Farmer	1	2		1	2	60	96	24	2	1	1	2	2
39	47	295 G. T. F	9.16E+09	1	B Tech	Merchant	1	2		1	2	30	204	60	2	1	1	2	2
40	18	OLD RICEI	9.99E+09	1	12th stanc	Student	1	2		2	1	16	18	1	1	2	2		2
41	67	13, V.O.C S	9.44E+09	1	10th stanc	Retired	1	2		2	1	67	1	1	1	2	2		1
42	81	7 PULIKUT	9.44E+09	1	Graduatio	Senior Citi	1	2		2	1	77	48	2	1	2	2		2
43	30	CHAINPUF	7E+09	1	11th stanc	Farmer	2	2		2	1	29	12	2	1	2	2		2
44	47	CHUTIA M	9.57E+09	2	9th standa	Home mal	1	2		2	1	40	84	48	1	2	1	2	2
45	42	MALANCH	8.9E+09	1	B Tech	Engineer	1	2		2	1	27	180	60	1	2	1	1	2
46	61	HINDUSTA	9.15E+09	1	Graduatio	Retired Ba	1	2		2	1	61	2	2	1	2	1	2	2
47	27	Sikandra,J	7.46E+09	1	Post gradu	Business	1	2		2	1	23	48	36	1	2	1	2	2
48	33	JAY PUR B	9.83E+09	2	Post gradu	Student	1	2		2	1	23	120	120	1	2	1	1	1
49	41	RAJ DHUN	6.2E+09	1	12th stanc	Business	2	2		2	1	41	1	1	1	2	2		2

	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
27	2	2	2		2	2	2	2	2	2	1	2		2					
28	2	2	2		2	2	1	2	2	2	2	2		2					
29	2	2	1	1	2	2	1	2	2	2	2	2		2					
30	2	2	2		1	1	1	2	2	2	2	2		2					
31	2	2	2		2	2	1	2	2	2	2	2		2					
32	2	2	2		2	2	1	2	2	2	2	2		2					
33	2	2	2		2	2	2	2	2	2	2	2		2					
34	2	2	1	1	2	2	2	2	2	2	1	2		2					
35	2	2	2		2	2	1	2	2	2	2	2		2					
36	2	2	2		2	2	2	2	2	2	2	2		2					
37	2	2	2		2	2	2	1	2	2	2	2		2					
38	2	2	2		2	2	2	2	2	2	2	2		2					
39	2	2	1	3	1	2	1	1	2	2	2	2		2					
40	2	2	2		2	2	2	2	2	2	2	2		2					
41	2	2	2		2	2	2	2	2	2	2	2		2					
42	2	2	1	1	2	2	1	2	2	2	2	2		2					
43	2	2	2		2	2	1	2	2	2	2	1	Vitiligo	2					
44	2	2	2		2	2	1	2	2	2	1	2		2					
45	2	2	1	1	2	1	1	2	2	2	2	2		2					
46	2	2	1	1	2	2	1	2	2	2	2	2		2					
47	2	2	2		2	2	1	2	2	2	2	2		2					
48	2	2	2		2	2	1	2	2	2	1	2		2					
49	2	2	2		2	2	2	2	2	2	2	2		2					

	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI
27													4	3	2	2	1		
28													16	10	2	2	1		
29					3	2	1	2									1		
30					7	4	1	2									1		
31					2	1	1	2									1		
32													2	2	2	2	1		
33					2	2	2	2									1		
34					2	1	2	2									1		
35					16	10	2	2									1		
36									3	2	2	1					1		
37													1	1	2	2	1		
38													16	10	2	2	1		
39									2	2	2	1					1		
40					4	4	2	2									1		
41													3	2	2	2	1		
42					5	5	2	2									1		
43													2	1	2	1	1		
44									3	3	1	2					1		
45									4	2	2	1					1		
46													4	2	2	1	1		
47													2	2	2	1	1		
48					1	1	2	2									1		
49													4	4	2	2	1		

	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB
27															1	1	2	2	1
28															5	3	2	2	1
29							7	5	1	2									1
30							5	3	1	2									1
31															2	2	2	2	1
32											1	1	2	1					1
33							2	2	2	2									1
34							5	2	2	2									1
35															5	3	2	2	1
36											4	2	2	1					1
37							3	2	2	2									1
38															10	10	2	2	1
39											1	1	2	1					1
40							11	7	2	2									1
41															4	2	2	2	1
42							10	4	2	2									1
43															1	1	2	1	1
44															4	2	1	2	1
45											2	2	2	1					1
46															3	1	2	2	1
47											1	1	2	2					1
48							4	2	2	2									1
49															1	1	2	2	1

	CC	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU
27									0.5	0.5	2	2							
28																	4	3	2
29													2	2	1	1			
30																	6	4	1
31									3	2	2	2							
32									2	3	2	2							
33																	3	2	2
34																	2	2	2
35									7	3	2	2							
36													4	3	2	1			
37					1	1	2	1											
38																	15	8	2
39													3	3	2	1			
40													10	8	2	1			
41									3	1	2	2							
42																	1	1	2
43																	3	1	2
44													3	3	1	1			
45																	3	1	2
46																	1	1	2
47																	3	3	2
48													5	2	2	2			
49																	1	1	2

	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN
27		1	2	1	2	2		6		2	2	2		2	2	2	1	1	1
28	2	2	2	1	2	2		8.4		2	2	2		2	2	2	1	1	1
29		2	2	2	2	2				1	2	2	3	1	1	1	2	2	2
30	2	2	2	2	2	2				1	2	2	3	1	1	1	2	2	2
31		2	2	2	2	2				2	2	2	2	2	2	2	2	2	2
32		2	2	1	2	2		11.7		2	2	2		2	2	2	1	1	1
33	2	2	1	1	2	2		15		2	2	2		2	2	2	1	1	1
34	2	2	2	1	2	2		13.2		2	2	2		2	2	2	1	1	1
35		2	2	1	2	2		7		2	2	2		2	2	2	1	1	1
36		1	2	2	2	2			3.4	2	2	2		2	2	2	1	1	1
37		1	2	1	2	2		2.3		2	2	2		2	2	2	1	1	1
38	2	2	2	1	2	2		5.6		2	2	2		2	2	2	1	1	1
39		2	2	1	2	2		6.9		2	2	2		2	2	2	1	1	1
40		2	2	2	2	2			13.2	2	2	2		2	2	2	1	1	1
41		1	2	2	2	2			5.3	2	2	2		2	2	2	1	1	1
42	2	2	2	2	2	2			14.1	2	2	2		2	2	2	1	1	1
43	2	1	2	2	2	2			1.6	2	2	2		2	2	2	1	1	2
44		1	2	2	2	2			2.5	2	2	2		2	2	2	1	1	2
45	2	1	2	2	2	2			11.2	2	2	2		2	2	2	1	1	1
46	1	1	2	2	2	2			1.6	2	2	2		2	2	2	1	1	1
47	2	1	2	2	2	2			3	2	2	2		2	2	2	1	1	1
48		1	2	2	2	2			9.2	2	2	2		2	2	2	1	1	1
49	2	1	2	2	2	2			2.4	2	2	2		2	2	2	1	1	1

	DO	DP	DQ	DR	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	EE	EF	EG
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49	2	1	1	2	2	2	1	1	1	1	2	2	2	2	2	2	2	2	2

	EH	EI	EJ	EK	EL	EM	EN	EO	EP	EQ	ER	ES	ET	EU	EV	EW	EX	EY	EZ
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31	2	2				2	1	1	2	2	2		1	1	1	1	1	3	3
32	2	2	1	1	1	1	1	1	2	1	1	3	3	1	2	2	2	1	1
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49	2	2	2	3	3	1	1	1	1	1	1	2	1	1	2	2	2	2	2

	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ	FK	FL	FM	FN	FO	FP
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28	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2
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46	2	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
47	1	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2
48	2	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
49	2	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2

KEY TO THE DATA SHEET

slno Serial no <IDNUM>

date Date <dd/mm/yyyy>

name Name

_____

hospno Hospital no _____

age Age ##

address Address

_____

contno Contact number ############

gender Gender # 1=Male, 2=Female

educat Education

_____

occupat Occupation

_____

localit Locality # 1=Urban, 2=Rural

FINAL DIAGNOSIS

mycosis Mycosis fungoides # 1=Yes, 2=No

dlqi If mycosis fungoides yes, DLQI ##

plaque Plaque psoriasis # 1=Yes, 2=No

discoid Discoid Eczema # 1=Yes, 2=No

HISTORY

onsetage Age of onset of the disease (in years) ##

disedur Duration of disease (in months) ###

onsetdiag Duration between symptom onset and diagnosis(months) ###

itchoozy History of itchy oozy lesions # 1=Yes, 2=No

itchscal History of itchy scaly lesions over extensor surfaces # 1=Yes, 2=No

seasvari Any seasonal variations # 1=Yes, 2=No

variyes If seasonal variations yes # 1=Summer, 2=Winter

atopy Any history of atopy # 1=Yes, 2=No

similesi History of similar lesions in past # 1=Yes, 2=No

histopat Histopathology confirmed # 1=Yes, 2=No

topisyst Any topical/systemic treatment taken during the last week # 1=Yes, 2=No

topiyes If topical/systemic treatment yes, what # 1=Topical, 2=Phototherapy, 3=Systemic

immuno History of use of immunosuppressant # 1=Yes, 2=No

topimmu Topical immunomodulators # 1=Yes, 2=No

topister Topical Steroid # 1=Yes, 2=No

systimmu Systemic Immunosuppressants # 1=Yes, 2=No

chemot Chemotherapy # 1=Yes, 2=No

malig History of any malignancies in past # 1=Yes, 2=No

fskinles Family history of similar skin lesions # 1=Yes, 2=No

skincond Other underlying skin conditions # 1=Yes, 2=No

skinyes If underlying skin conditions yes, what condition

---

systcomp Any systemic complaints # 1=Yes, 2=No

compyes If systemic complaints yes, what

ON EXAMINATION

LESION 1

headszl1 Size of the lesion (cms) head - lesion 1 length ##.#

headsl1b Size of the lesion (cms) head - lesion 1 breadth ##.#

headcml1 Corresponding morphology head - lesion 1 #1=Patch, 2=Plaque, 3=Tumor

headl1 head - lesion 1 # 1=Exposed, 2=Unexposed

Neckszl1 Size of the lesion (cms) Neck - lesion 1 length ##.#

Necksl1b Size of the lesion (cms) Neck - lesion 1 breadth ##.#

Neckcml1 Corresponding morphology Neck - lesion 1 #1=Patch, 2=Plaque, 3=Tumor

Neckl1 Neck - lesion 1 # 1=Exposed, 2=Unexposed

Trunszl1 Size of the lesion (cms) Trunk - lesion 1 length ##.#

Trunsl1b Size of the lesion (cms) Trunk - lesion 1 breadth ##.#

Truncml1 Corresponding morphology Trunk - lesion 1 # 1=Patch, 2=Plaque, 3=Tumor

Trunl1 Trunk - lesion 1 # 1=Exposed, 2=Unexposed

uplszl1 Size of the lesion (cms) Upper limbs - lesion 1 length ##.#

uplsl1b Size of the lesion (cms) Upper limbs - lesion 1 breadth ##.#

uplcml1 Corresponding morphology Upper limbs - lesion 1 # 1=Patch, 2=Plaque, 3=Tumor

upll1 Upper limbs - lesion 1 # 1=Exposed, 2=Unexposed

lwlszl1 Size of the lesion (cms) Lower limbs - lesion 1 length ##.#

lwlsl1b Size of the lesion (cms) Lower limbs - lesion 1 breadth ##.#

lwlcml1 Corresponding morphology Lower limbs - lesion 1 #1=Patch, 2=Plaque, 3=Tumor

lwll1 Lower limbs - lesion 1 # 1=Exposed, 2=Unexposed

LESION 2

examl2 On examination - lesion 2 # 1=Yes, 2=No

headszl2 Size of the lesion (cms) head - lesion 2 length ##.#

headsl2b Size of the lesion (cms) head - lesion 2 breadth ##.#

headcml2 Corresponding morphology head - lesion 2 # 1=Patch, 2=Plaque, 3=Tumor

headl2 head - lesion 2 # 1=Exposed, 2=Unexposed

Neckszl2 Size of the lesion (cms) Neck - lesion 2 length ##.#

Necksl2b Size of the lesion (cms) Neck - lesion 2 breadth ##.#

Neckcml2 Corresponding morphology Neck - lesion 2 # 1=Patch, 2=Plaque, 3=Tumor

Neckl2 Neck - lesion 2 # 1=Exposed, 2=Unexposed

Trunszl2 Size of the lesion (cms) Trunk - lesion 2 length ##.#

Trunsl2b Size of the lesion (cms) Trunk - lesion 2 breadth ##.#

Truncml2 Corresponding morphology Trunk - lesion 2 #1=Patch, 2=Plaque, 3=Tumor

Trunl2 Trunk - lesion 2 # 1=Exposed, 2=Unexposed

uplszl2 Size of the lesion (cms) Upper limbs - lesion 2 length ##.#

uplsl2b Size of the lesion (cms) Upper limbs - lesion 2 breadth ##.#

uplcml2 Corresponding morphology Upper limbs - lesion 2 # 1=Patch, 2=Plaque, 3=Tumor

upll2 Upper limbs - lesion 2 # 1=Exposed, 2=Unexposed

lwlszl2 Size of the lesion (cms) Lower limbs - lesion 2 length ##.#

lwlsl2b Size of the lesion (cms) Lower limbs - lesion 2 breadth ##.#

lwlcml2 Corresponding morphology Lower limbs - lesion 2# 1=Patch, 2=Plaque, 3=Tumor

lwll2 Lower limbs - lesion 2 # 1=Exposed, 2=Unexposed

LESION 3

examl3 On examination - lesion 3 # 1=Yes, 2=No

headszl3 Size of the lesion (cms) head - lesion 3 length ##.#

headsl3b Size of the lesion (cms) head - lesion 3 breadth ##.#

headcml3 Corresponding morphology head - lesion 3 # 1=Patch, 2=Plaque, 3=Tumor

headl3 head - lesion 3 # 1=Exposed, 2=Unexposed

Neckszl3 Size of the lesion (cms) Neck - lesion 3 length ##.#

Necksl3b Size of the lesion (cms) Neck - lesion 3 breadth ##.#

Neckcml3 Corresponding morphology Neck - lesion 3 # 1=Patch, 2=Plaque, 3=Tumor

Neckl3 Neck - lesion 3 # 1=Exposed, 2=Unexposed

Trunszl3 Size of the lesion (cms) Trunk - lesion 3 length ##.#

Trunsl3b Size of the lesion (cms) Trunk - lesion 3 breadth ##.#

Truncml3 Corresponding morphology Trunk - lesion 3 # 1=Patch, 2=Plaque, 3=Tumor

Trunl3 Trunk - lesion 3 # 1=Exposed, 2=Unexposed

uplszl3 Size of the lesion (cms) Upper limbs - lesion 3 length ##.#

uplsl3b Size of the lesion (cms) Upper limbs - lesion 3 breadth ##.#

uplcml3 Corresponding morphology Upper limbs - lesion 3 # 1=Patch, 2=Plaque, 3=Tumor

upll3 Upper limbs - lesion 3 # 1=Exposed, 2=Unexposed

lwlszl3 Size of the lesion (cms) Lower limbs - lesion 3 length ##.#

lwlsl3b Size of the lesion (cms) Lower limbs - lesion 3 breadth ##.#

lwlcml3 Corresponding morphology Lower limbs - lesion 3 # 1=Patch, 2=Plaque, 3=Tumor

lwll3 Lower limbs - lesion 3 # 1=Exposed, 2=Unexposed

bsa Body surface area(%) # 1=Less than 10, 2=More or equal 10

erythr Erythroderma # 1=Yes, 2=No

auspitz Auspitz sign # 1=Yes, 2=No

nail Nail involvement # 1=Yes, 2=No

arthrit Arthritis # 1=Yes, 2=No

artyes If Arthritis yes what

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pasiscr PASI score ###.#

easiscr EASI score ##.#

SYSTEMIC EXAMINATION

lymphad Lymphadenopathy # 1=Yes, 2=No

epatom Hepatomegaly # 1=Yes, 2=No

splenom Splenomegaly # 1=Yes, 2=No

stagmf Staging for MF # 1=IA, 2=IB, 3=IIA, 4=IIB, 5=IIIA, 6=IIIB, 7=IVA1, 8=IVA2, 9=IVB

DERMOSCOPY

l1reg Regular-appearing white structureless areas - Lesion 1 # 1=Yes, 2=No

l2reg Regular-appearing white structureless areas - Lesion 2 # 1=Yes, 2=No

l3reg Regular-appearing white structureless areas - Lesion 3 # 1=Yes, 2=No

l1dv Dotted vessels - Lesion 1 # 1=Yes, 2=No

l2dv Dotted vessels - Lesion 2 # 1=Yes, 2=No

l3dv Dotted vessels - Lesion 3 # 1=Yes, 2=No

l1fine Fine short linear vessels - Lesion 1 # 1=Yes, 2=No

l2fine Fine short linear vessels - Lesion 2 # 1=Yes, 2=No

l3fine Fine short linear vessels - Lesion 3 # 1=Yes, 2=No

l1dlv	Dotted + linear vessels - Lesion 1	# 1=Yes, 2=No
l2dlv	Dotted + linear vessels - Lesion 2	# 1=Yes, 2=No
l3dlv	Dotted + linear vessels - Lesion 3	# 1=Yes, 2=No
l1glob	Globules - Lesion 1	# 1=Yes, 2=No
l2glob	Globules - Lesion 2	# 1=Yes, 2=No
l3glob	Globules - Lesion 3	# 1=Yes, 2=No
l1Glom	Glomerular vessles - Lesion 1	# 1=Yes, 2=No
l2Glom	Glomerular vessles - Lesion 2	# 1=Yes, 2=No
l3Glom	Glomerular vessles - Lesion 3	# 1=Yes, 2=No
l1hair	Hair pin loop vessels - Lesion 1	# 1=Yes, 2=No
l2hair	Hair pin loop vessels - Lesion 2	# 1=Yes, 2=No
l3hair	Hair pin loop vessels - Lesion 3	# 1=Yes, 2=No
l1Sper	Spermatozoa like structures - Lesion 1	# 1=Yes, 2=No
l2Sper	Spermatozoa like structures - Lesion 2	# 1=Yes, 2=No
l3Sper	Spermatozoa like structures - Lesion 3	# 1=Yes, 2=No
l1yv	Y shaped arborizing vessels - Lesion 1	# 1=Yes, 2=No
l2yv	Y shaped arborizing vessels - Lesion 2	# 1=Yes, 2=No
l3yv	Y shaped arborizing vessels - Lesion 3	# 1=Yes, 2=No
l1va	Vessel arrangement - Lesion 1	# 1=Regular, 2=Clustered, 3=Patchy
l2va	Vessel arrangement - Lesion 2	#1=Regular, 2=Clustered, 3=Patchy
l3va	Vessel arrangement - Lesion 3	#1=Regular, 2=Clustered, 3=Patchy
l1white	white scales - Lesion 1	# 1=Yes, 2=No
l2white	white scales - Lesion 2	# 1=Yes, 2=No
l3white	white scales - Lesion 3	# 1=Yes, 2=No
l1Yelw	Yellow scales - Lesion 1	# 1=Yes, 2=No
l2Yelw	Yellow scales - Lesion 2	# 1=Yes, 2=No
l3Yelw	Yellow scales - Lesion 3	# 1=Yes, 2=No

l1Scale	Scale distribution - Lesion 1	# 1=Patchy, 2=Peripheral, 3=Diffuse
l2Scale	Scale distribution - Lesion 2	#1=Patchy, 2=Peripheral, 3=Diffuse
l3Scale	Scale distribution - Lesion 3	#1=Patchy, 2=Peripheral, 3=Diffuse
l1orang	Orange yellowish patchy areas - Lesion 1	# 1=Yes, 2=No
l2orang	Orange yellowish patchy areas - Lesion 2	# 1=Yes, 2=No
l3orang	Orange yellowish patchy areas - Lesion 3	# 1=Yes, 2=No
l1color	Background color - Lesion 1	# 1=Light red, 2=Dull red, 3=Brown
l2color	Background color - Lesion 2	#1=Light red, 2=Dull red, 3=Brown
l3color	Background color - Lesion 3	#1=Light red, 2=Dull red, 3=Brown
l1yelcr	Yellow crusts - Lesion 1	# 1=Yes, 2=No
l2yelcr	Yellow crusts - Lesion 2	# 1=Yes, 2=No
l3yelcr	Yellow crusts - Lesion 3	# 1=Yes, 2=No
l1perif	Perifollicular accentuation - Lesion 1	# 1=Yes, 2=No
l2perif	Perifollicular accentuation - Lesion 2	# 1=Yes, 2=No
l3perif	Perifollicular accentuation - Lesion 3	# 1=Yes, 2=No
l1comed	Comedo like openings - Lesion 1	# 1=Yes, 2=No
l2comed	Comedo like openings - Lesion 2	# 1=Yes, 2=No
l3comed	Comedo like openings - Lesion 3	# 1=Yes, 2=No

Histopathological features

lympcel	Atypical irregular lymphoid cells within the epidermis	# 1=Yes, 2=No
lympepi	Lymphocytes disposed as solitary units and aligned in the basal layer of the epidermis	# 1=Yes, 2=No
lympvess	Lymphohistiocytic infiltrate surrounding the vessels	# 1=Yes, 2=No
sponepi	Lack of spongiosis of the epidermis	# 1=Yes, 2=No
psorepi	Psoriasiform epidermal hyperplasia	# 1=Yes, 2=No
cd347	Immunohistochemistry positive for CD3,CD4 and negative for CD7	# 1=Yes, 2=No