

“SKIN DISORDERS IN DIABETES MELLITUS - A CLINICOPATHOLOGICAL STUDY”

ABSTRACT

INTRODUCTION

Diabetes Mellitus (DM) is a metabolic disorder with inappropriate hyperglycemia due to either inadequate insulin secretion or combination of insulin resistance and inadequate insulin secretion to compensate causing disturbances of carbohydrate, protein and fat metabolism. As diabetes mellitus is the great clinical imitator with a wide range of signs and symptoms affecting all systems and every organ of the body skin is also frequently involved. Skin manifestations in diabetes are numerous and percentage varies from 30-71% indicating how common skin involved in diabetes. Skin is affected by both acute metabolic derangements and the chronic degenerative complications.

AIMS AND OBJECTIVES

This study is to analyze the prevalence and pattern of skin disorders among diabetes mellitus patients in this tertiary care center in Chennai and to study the correlation between mean duration of diabetes mellitus and their skin manifestations. Our study also compares the dermatoses in insulin dependent diabetes mellitus with those of non-insulin diabetes mellitus. We also studied about the treatment related skin manifestations.

METHODOLOGY :

This is a prospective observational study involving 200 consecutive patients. A detailed medical history pertaining diabetes was elicited in each patient with particular reference to the cutaneous complaints including duration, history of evolution and progression. Specific and non-specific skin findings related to diabetes mellitus was documented. Bedside laboratory procedures like the Tzanck smear, KOH mount, and Gram's stain were carried out wherever needed. Skin biopsy was done in cases with diagnostic ambiguity to confirm the diagnosis.

Inclusion criteria:

All patients who attend dermatology op with skin findings suggestive of diabetes mellitus and all known diabetic patients with skin manifestations referred from diabetology department.

Exclusion criteria:

Patients who are not willing for study and those who having other associated endocrine diseases.

RESULTS:

- Among 200 patients 145 patients (72.5%) were Type 1 DM and 55 patients (27.5%) were Type 2 DM. Cutaneous infections occurred in 70.5% of patients in our study of which we found fungal infections were most common(59.5%). Among fungal infections we observed candidiasis(28%) as the most common fungal infections. Vulvovaginal candidiasis was most seen type in females while males had balanoposthitis as common type. Second most common fungal infection was found to be dermatophytosis(18.5%). Bacterial infections(24.5%) are the next common infection noted in our study. We found that 7% of diabetics had leg ulcer as the most common lesion due to vascular damage. Neuropathy was observed in 45.5% among IDDM and 28.3% among NIDDDM thus in total around 33% patients in this study population. Acrochordon is found to be the most common obesity/ hyperlipidemia related disorders. Among diabetes associated dermatoses (20%) pruritus was present in 11% of our study. Truncal pruritus was seen in 6% and anogenital pruritus in 5%. Vitiligo, Oral lichen planus, acanthosis nigricans, granuloma annulare were seen exclusively in type 1 DM group. Psoriasis, acrochordons, localized cutaneous amyloidosis were limited more to the NIDDM group.

CONCLUSION:

In a prospective observational study consisting of 200 diabetics with cutaneous features attending our hospital RGGGH, Chennai we found that, most of the dermatoses associated with diabetes were found in age group of 41 to 50 years of age. Cutaneous infections formed the largest group in our study correlating in almost all various studies. Among infections fungal infections are the most common infection. Candidiasis was found to be the early marker of undiagnosed diabetes.

By recognizing these cutaneous features, the underlying diabetes can be diagnosed promptly at an early stage thereby making the prognosis better. Thus emphasizing the importance of the physicians to be made aware of cutaneous manifestations in diabetes

mellitus where the ignorance of skin manifestations in diabetes or improper treatment may make the condition worse. The early detection and treatment of common skin manifestations in diabetes will prevent further complications or ineffectiveness due to treatment which will help these patients to lead a normal life.

KEYWORDS:

Fungal Infections, Leg Ulcer, Granuloma Annulare, Cheiroarthropathy, Scleredema Diabeticorum.