

GOVERNMENT SIDDHA MEDICAL COLLEGE

**(Affiliated to the Tamil Nadu Dr.M.G.R.Medical
University,
Chennai)
Palayamkottai – 627002**

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DISSERTATION

Submitted in partial fulfillment of requirements to the Degree

of

DOCTOR OF MEDICINE

GUNAPADAM BRANCH II

**Hypo -Glycaemic Activity
Activity**

of

**TANNEERVITTANKIZHANGU
CHOORANAM**

Hypo –Glycaemic

of

**ANJANACKAL
PARPAM**

Acknowledgement

Acknowledgement

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**Thanneervittan Kizhangu
Chooranam**

Introduction

INTRODUCTION

Plant and plant products are being used as a source of Medicine since long. According to World Health Organization more than 80% of the world's population mostly in poor and less developed countries depend on traditional plant-based medicines for their primary health care needs.

Medicinal plants are the nature's gift to human being to make disease free healthy life. It plays a vital role to preserve our health. India is one of the most medico-culturally diverse countries in the world, where the medicinal plant sector is part of a time honored trading that is respected even today. Siddha systems reveals the ancient Indian who had a rich knowledge of the use of medicinal plants.

Use of plants for treating various ailments in both man and animal. India is richly endowed with a wide variety of plants having medicinal value. These plants are widely used by all sections of society.

In recent times focus on plant research has increased all over the world and a large body of evidence has collected to show immense potential of medicinal plants used in Siddha.

Medicinal plants are a major source of biodynamic compounds of therapeutic values. Medicinal plants are assuming greater importance in

the primary health care of individuals and communities in developing countries.

According to the text of siddha "*Madhumegam*" is a disease of Karma, also a disease of hereditary. It was known to be a kind of "*pramega*" the patients who suffers from debility and emaciation. The word "pra" means excessive "**mega**" means cerinatism.

Siddhars explaind about the disease and gave treatment by pathological and psychological nature of this disease. The siddha way of treatment mostly based on constitutional disorders of the patient which could be concluded by the pulse of the patient and envagai thervu.

Now it is our prime duty and endeavour to make our siddha medicine familiar all over the world. Realizing this goal the author has selected "*Thanneervittan kizhangu Chooranam*" to check its efficacy in madhumegam.

Aim and Objective

AIM AND OBJECTIVE

In recent years the whole world will watch and depends something from natural system, especially in Siddha system.

The treatment in siddha medicine is aimed at keeping the three humors in equilibrium and maintenance of seven elements. Saint Thiruvalluvar explains four requisites of successful treatment. These are the patient, the attendant, physician and the medicine.

" உற்றவன் தீர்ப்பான் மருந்துளை செல்வானென]
றப்பனா] கூற்றே மருந்து "

திருக்குறள்

The aim of this dissertation is to bring out the most acceptable drug with out any side effects from ancient systems of medicine for incurable disease.

Comparing with other system, siddha medicines are prepared with most care and with involvement of soul. Every siddha medicine reaches the patient after processing. Every siddha physician to take too much care and give attention in preparing medicines. In siddha system the physician alone prepared his own medicine with supervision. So the author as a siddha physician to prove *Thanneervittan Kizhangu chooram* as an effecting medicine on treating *Madhumegam*.

In siddha literature indicates Thanneervittan kizhangu indicates for treating Neerilivu.

Its hypoglycaemic action has not yet been proved scientifically. So author has tried to prove its effect on treating Neerilivu on the basis of

1. Gunapadam aspects
2. Biochemical aspects
3. Pharmacological aspects
4. Microbiological aspects
5. Clinical aspects

Review of Literature

Botanical Aspect

Thanneervittan Kizhangu



REVIEW OF LITERATURES

BOTANICAL ASPECTS

Thanneervittan Kizhangu is a perennial shrub. According to Benthem and Hookers classification " Thanneervittan Kizhangu" is classified as follows:

Kingdom	:	Plantae
Division	:	Magnoliophyta
Class	:	Liliopsida
Order	:	Asparagales
Family	:	Liliaceae
Subfamily	:	Asparagaceae
Genus	:	Asparagus
Species	:	Racemosus

Habitat :-

It is seen throughout India Concan, Deccan

-Materia Medica

Throughout tropical and subtropical India and Ceylon upto 4000 ft in the Himalays from Kashmir Eastwards, Tropical Africa, Java and Australia.

-Indian Medical Plants Vol IV P.no: 2500

Mixed forests of Western part ie. Morand river tract, Tawa Basin.

Sarnt	:	33.33%
Barbarpur	:	28.50%
Tapti	:	22.22%
Sawalmendha	:	18.75%

-Medicinal plants. P.no: 206

It is also found in Kareem in the Chhindwara district of MP.

Handbook of Medicinal plants:

It is seen in Europe P.no : 49 temperate and Tropical Asia.

Hooker flora of India Vol III P.no: 316

Habit :

It is a much branched perennial tuberous scandent shrubs with a creeping rhizome and a long aerial stem which is climbing.

Leaves :

The leaves are reduced to scales often spinescent, bearing in the axils tufts of needle like or flattened cladodes, Cladodes are 2-3 and are arranged in a tuft and falcate cladodes are 1.3 to 2.5 cm long, flat, mid vein distinct.

Inflorescence :

Generally racemose, Flowers bisexual, regular, hypogynous, flowers in axillary, Bracts upto 1mm long, Racemes are 2.5 to 5 cm long Pedicels are jointed at the middle and slender below the joint. The pedicels are 5mm long. Flowers are white, fragrant in solitary or fascicled.

Perianth :

Perianth lobes 6, biseriate, 2 to 3mm long, Outer lobes linear oblong, inner linear spatulate. Imbricate or Valvate in bud

Androecium:

Stamens 6 in 2 whorls, filaments 2 to 3 mm long, filiform, Anthers introse, anthers yellow

Gynoecium :

Ovary superior, trigonus, three locular usually with 2 abortive ones. Ovules 2 to few per locule. Style short, stigmas 3, each upto 1mm long.

Fruit:

Berry 5 to 6 mm in diameter, globose, red, seeds black, smooth, 3 to 6 seeded.

-Flora of coorg P.No : 471

-Flora of the presidency of the Madras Vol III P.no : 1517

Cultivation:

The plant can be successfully grown in black cotton soil with river sand. They can be propagated from adventitious roots, which are dipped in liquid cow dung for 24hrs before planting in raised bed. The sprouted saplings are later transferred to beds 30 metre in length and 20 metre in breadth. They required hoeing and weeding during the rainy season. Spraying of defoliators like 2,4 increases the yield of roots by reducing the number of cladodes. Application of nitrogenous manure at the rate of 50kg nitrogen per hectare is beneficial.

Collection & Storage:

It is generally used fresh but the roots are to be boiled and then dried to preserve them

Macroscopic characters of asparagus:

The roots of *Asparagus racemosus* are borne in compact bunch and are fleshy and spindle shaped. The long tapering roots arise adventitiously from the short root stock. The roots are cylindrical upto 2cm in diameter. They are silvery white or light ash coloured or cream yellow in colour with a smooth surface externally and white internally more or less smooth when fresh. Developing longitudinal wrinkles when dry. Surface skins is easily separable and shows a glistening material inside. Transverse section of a fresh root shows a narrow yellow

peripheral strip, a silvery white, fleshy soft middle region and hard, narrow central woody core. Smell like that of burnt sugar.

-Materia Medica of India and their Therapeutics page: 613

-Hand book of Medical plants Vol I page : 90

Microscopic:

Shows an outer layer of piliferous cells, ruptured at places, composed of small, thin walled rectangular asymmetrical cells a number of cells elongated to form unicellular root hairs cortex, comprises of 25 to 29 layers distinct in two zones, outer and inner cortex. Outer cortex consists of 6 or 7 layers, compactly arranged irregular to polygonal, thick walled, lignified cells, inner cortex comprises of 21 to 23 layers oval to polygonal, thin walled tangentially elongated cells with intercellular spaces. Stone cells either singly or in groups form a discontinuous to continuous ring in the upper part of this region. Raphides of calcium oxalate also present in this region 2 or 3 layers of stone cells encircle the endodermis. Endodermis composed of thin walled parenchymatous cells pericycle present below endodermis, stele exarch and radial in positive xylem consists of vessels, trachieds and parenchyma. Xylem Vessels have pitted thickening, Phloem patches

consists of usual element. Pith composed of circular to oval parenchymatous cells, a few cells slightly lignified.

-Ayurvedic pharmacopea of India vol IV Page : 108.

Phytochemistry:

Clinical efficacy of root powder (12.0g/day for six weeks) evaluated in patients with duodenal ulcer. In 75% cases it relieved most of the symptoms (reduction in gastric acid response, endoscope improvement) it did not exhibit antacid activity inhibited basal output by 48.0, histamine induced maximum output by 48.0, histamine induced maximum output by 38.0, and alcohol induced serration by 32.0% (J. Res, Ayurveda & Siddha 1986)

Four glycosides – compound A

Shatavarin I

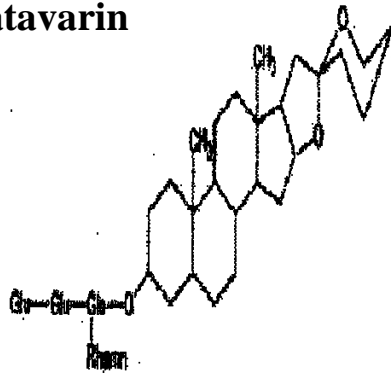
Shatavarin II

Shatavarin IV

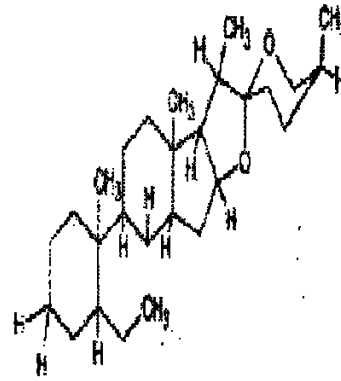
Isolated from roots. Structure of shatavarin IV elucidated Ind, J.

Chem 1987, 26 B, 1012

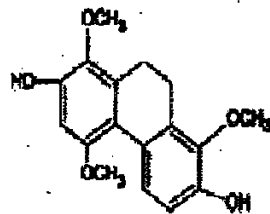
Shatavarin



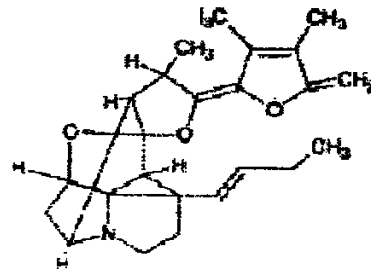
Sarsasapogenin



Racemosol



Asparagamine



-Pharmacognosy Reviews

Shatavarin IV

R=Glu[(2→1) Rha] (4→1) Glu

Biological Activity:

Shatavarin- I showed specific antioxytotic activity in vitro and in vivo(Indian j, chem. 1987, 26 B 1012)

-Compendium of Indian Medicinal plants Vol IV Page 81

Isolation of sitosterol 4,6 dihydroxy 2-O(2 hydroxy isobutyl) benzaldehyde and undecanyl cetonate from roots(J.Indian chem.. So 1991) a new polycyclic alkaloid asparagine 'A' isolated from roots and its structure determined by x-ray analysis.

In 1969 Quercetine 3 glucuranide, mp 204 isolated from leaves.

-Compendium of Indian medicinal plants volume I Page : 50

Large amounts of Saccharine matter and mucilage is present.

-Medicinal plants in India pare : 177

Plant also contains saponins

Roots contain sitosterol, udecanyl cetonnoate

Leaves contain diosgenin

Mature fruits contain glycosides, sitosterol, stigmasterol, sarasapogenin, sitosterol B.D. glucoside

-Medical plants of India Vol I

Fruits and flowers yields glycosides of guercetin, rutin and hyperoside.

Ripe fruits have been reported to contain cyanidine -3 – glycosides

2. Spirostanolic and 2 furatrain saponins have also been isolated from the plants

-Medicinal plants and rawdrugs of India page : 529

New isoflavone 3 methoxy – 5,6,4 for hydroxy-iso-flavone 7-ob-d glucopyranoside was reported from the roots of the plant.

Later a new 9,1-dihydrophenathrene derivative named. Raceneosol was isolated from the ethanol extract of roots. Its structure was elucidated by spectroscopic analysis as 9,10 dihydro 1,5 dimethoxy- 8 methyl- 2, 7- phenanthrenediol.

Velavan and coworkers reported the quantitative analysis of A racemosces root extract revealed that the presence of flavonoid(36.7 3.9 mg/100 ml) polyphenols (88.2 9.3 mg/100ml) and vitamin C(40.4 5.1 mg/100ml)

Mishra shows that root contains 4.6 to 6.1 % protein, Carbohydrates 36.8 to 47.5%, phenols 3.1 to 5.2 mg/g. tannins 4.8 to 5.1 mg/g, Saponins 4.1 to % and ash 6.5 to 7.4 % Antioxidant activity is 20.4 to 23.9% Root contain higher amount of phenolic compounds such as ferulic acid rutin, Kaempferol.

Pharmacognosy Reviews.

Gunapadam Aspects

GUNAPADAM ASPECTS

Asparagus racemosus willd

Or

Asparagus sartmentosus

வேWபெயர்:

தண்ணீர்விட்டான]/ சதாவேலி/ சதாவேரி/ சதாமூலம்]/ சதமுலை/
நீர்வாளி/ நாராயணி/ நீர்விட்டான்/ ஆகேருகம்]/ வரிவரி/ உதகமூலம்]/
சீக்குவை/ பறணை/ பீருதந்தி

Eng : Wild asparagus
Tel : Pillipeechara
Mal : sataveri
Sans : shatavari
Hind : Satavare
Kan : satmula

-குணபாடம் மூலிகை வகுப்பு 499

“தண்ணீர் மிட்டான் பேரைச் சாத்தக் கேளு

சாதாவரி சூஷீம பத்திரா மருத்தி

பண்ணியாம் வரிவரி பீகுவாகும]

யழகான பெருமூலா சடமூலாசக்

துண்ணியாம் துங்கினி பெருசு தாகேசி

சூஷீமாம் நாராயணி யித்தியாபியாகும்

பண்ணியாம் பீருபந்திரி பெகுபுத்திரி காயாம]

பொருந்திய தண்ணீர் மிட்டான் பேருமாமே”

Vernacular Names:

San	:	Shatavari, Shatamulli
Hind	:	Shakakel, Satavari
Ben can	:	Satmuli, Hallarru-makkal, jayibem
Guj	:	Satavar
Mab	:	Satavari-mull
Tam	:	Kilavari, Tannirvittan kizhangu, sandavare, Shimai shadavari, paniyanaku
Tel	:	Philli-taga, challa-gaddalu, sadavari
Mal	:	shatavali
Kash	:	Sejhana
Sind	:	Tilora
Assam	:	Hatmuli
Burm	:	Kanyo-mi
Pers	:	Satavari
Sinb	:	Hatavari
Gwalior	:	Sitavar

-The Indian materia medica vol I

-A.K. Nadkarni Page : 154

Guj : Ekalakanto

Hind : Chatwal

Kan	:	Aheruballi
Mar	:	Zetar, Shatmuli
Deccan	:	Shaqaqulemisr
Dehra Dun	:	Satraval
Hosada	:	Tursulungai
Hindi	:	Bojhidan, Sadabori, Satawar, Satmuli Shakatul
Janusar	:	Sharnanoi
Marathi	:	Asvet, Satavarimul, Shatavar, Shatmuli, Zatar
Murdari	:	huringatikir
Naguri	:	huringatikir
Nepal	:	Stamuli
Persian	:	Shaqaqul
Porebunder	:	Gajvel, oklakanto, sarpanasuva
Punjab	:	Bozandan, Bazidan, Bozidun, Satawar
Sanskrit	:	Abhiru, Aheru, Aradhakantaka

Atmagupta, Babumula, Bahusta, bhirs, Bhirupatri, Darakantika, Divya, Durmana Dvipashatru, Dvipika, Dvipishatru, Indivari, jata, Kanchanakarini, Karstni, Keshika, Laghuparnika, Mahashita, Mula, Narayani, Pivari, Ranginin, Rishagata, Shvetamuuli, Sukshmapatra, Supatra, Supatrika, Svadurasa, Thidevalli, Vaishnavi, Vari, Vashudeva Priyankari, Vishvasya, Vrishya,

Sind	:	Tilora
Sinhalese	:	Hatavari
Tamil	:	Migundavanam, Nirmittan, Nirvittan, Sadamulam, Sadaveli, Sandavari, Sattavari, Sirumal, Tusuppu, Varivari
Telugu	:	Ettavalundutige, Pichara, Pilli, Pillipichara, Pillityaga, Satanandudes, Sitammajata.
Tigrinia	:	Attalt, Gastanesto
Tulu	:	Tandang, Uduriburu
Urdu	:	Satavara
Uriya	:	Chhotaru, Mohajolo, Sotabari

-Indian Medicinal plants vol IV (2500)

இது கொடியினம்/ இந்தியாவில்] எல்லா இடங்களிலும்] பயிராகிறது
இவ்வினத்தில் சீமை தண்ணீர்விட்டான் என்ற ஒரு வகையுமுண்டு

பயன்படும் cWgபு : இலை கிழங்கு

சுவை : இனிப்பு

-குணபாடம் மூலிகை வகுப்பு பக்கம் 499

Taste : Sweet and bitter

-Wealth of India Volume I page : 470

கசப்பும]/ இனிப்புமான சுவை

-சரக சம்ஹிதை பக்கம் 96

The Root is slightly sweet

-Indian Medicinal plants Volume IV page 2500

தன்மை : தட்பம்

பிரிவு : இனிப்பு

செய்கை :

உடலுரமாக்கி Nutritive

உள்ளழலாற்றி Demulcent

பாற்பெருக்கி Galactagogue

காமம் பெருக்கி Aphrodisiac

-குணபாடம் மூலிகை வகுப்பு பக்கம் 499

Refrigerant

Diuretic

Antidiarrhoeal

Antidysenteric

-Medical plants P.K. Pagrare page 2500

Alterative

Stomachic

Tonic

Laxative

Expectorant

-Indian Medicinal Plants Volume IV Page 2500

Hypoglycaemic

Gastric sedative

Cardiotonic

Cardiotoxic

Hypotensive

Anticoagulant

Enzymatic

Antioxytotic

-Pharmacological Investigations of certain medicinal plants and
compound formulations used in Ayurveda and Siddha Page : 316

Antifungal

Antiseptic

Stimulant

Restorative

Bark :

Antibacterial

Antiparasitic

Antitumour

-Medicinal plants and raw drugs of India page : 529

குணம் :

“நீரழிவைப் போக்கும் நெடுநாட்சு ரத்தையெலாம்]

ஊரைவிடுத் தோடவு ரைக்குங்காண்- நாரியரே* ஆ

வெண்ணீர்]bga] சோமநோய் வெட்டை யனல்தணிக்குந்

தண்ணீர்விட] டான்கிழங்கு தான்.”

இதன் கிழங்கு நீரழிவு. நாட்பட்டசுரம்/ எலும்புருக்கி நோய் / வெந்நீரை

அழிக்கும் நோய்] / வெட்டை/ உட்குடு முதலியவற்றை நீக்கும்.

499.

“நீர்விட்டான் கிழங்கின் தன்மை நிகழ்சுவை தீர்த்தம் ஸ்வாது
நேர்லகு மதுரத் சீதம] நீடிய ரக்த பித்தம்
வார்ஷயம் வாதம் போக்கும் வளர்ஸா யனத்தினோடு
பேர்பெறும்] tU#a khf]Fk] bgUk]gpj]je; jida[k]
nghf]Fk]”

jz]zPtp]lhd]fpH';F jpf]j. kJu Ritfisa[k] rPjtPhpaj]ija[k]/ yF
Fz]ija[k] kJu tpghf]ija[k] cilaJ. ,uj]gpj]jk]/ #ak]/ thjk]/ gpj]jk]/
,tw]iwf] fz]oj]J tpU#]a rf]jpa[k]/ Ma[s] tpU]jpa[k] jUk].

“gpd]Dkf] fpH';fpd] jd]ik ngrpL !]epf]jkhFk]
cd]DjPgd]ij ahf]F Kw]wpLk] tpHpf]F ed]ik
gd]dpa Fd]kk] tP]fk] gfujp rhue] jPh]f]Fk]
jd]dpa funk ahF bkd]wdh] jhtpD}nyhh]”

nkYk] jz]zPh] tp]lhd] fpH';F jPgd]ija[k]/ jha]]ghiya[k] tpU]jp
bra]a[k]. tpHpfSf]F ed]ik cz]lhf]Fk]. Fd]kk]/ tP]fk]/ mjprhuk]
Kjypatw]iwa[k] fz]of]Fk]

-gjh]j]j g"]r Fz k";rhp gf]fk] 107

tHf]F:

,iyia nfitij]J bea] j]tp rpW bfhg]gs';fSf]F it]j] f]l]ykh].

,iyrhW]Wld] ghy] nrh]]Jf] bfhLj]Jtu btg]g]]ijf] FiWj]J bts]isia
epWj]Jk].

fpH';F:

fpH';ifg] ghypy] ntf itj]J mg]ghiy cl]g[f]l mHyhy] cz]lhd
Ritapd]ik/ brhpahf] fHpr]ry] Kjypad jPUK].

fpH';Fr]rhW 1g';F/ btz]bza] 1 g';F ghy] 10 g';F ,tw]iw
bea]ahfr] bra]J rh]f]fiu/ njd]/ jpg]gpyp nrh]]Jr] rhg]gpl cly] tYf]Fk]/
Mz]ik bgUFk].

fpH';ifg] bgho bra]J ntisf]F xd]W Kjy] 8 fpuhk] vil jpdk] ,U ntis
bfhs]s Mz;ikbgUFk;.

jz]zPh]tpl]lhd] fpH';fpd] ,urk]/ njd] ,iitfiser] nrh]]Jf] Foj]J tu
tapw]wpYz]lhFk] Niy eP';Fk].

-Fzghlk] \ypif tFg]g[gf]fk] 500

Decoction of the leaves is useful in expelling stones, from the urinary
tract.

-Ethnomedicinal uses of plants page : 153

Root:

Root has a possible role in the treatment of sexual impotency
general debility and promotion of urination.

It is given to the mother after delivery. It is claimed that this gives strength in post delivery period.

-Medical plants Page : 206

The roots are used as cooling, indigestible, appetizer, tumour, inflammations, diseases of the blood, throat complaints, tuberculosis, Leprosy, night blindness, useful in diseases of the kidney and the liver, scalding urine, gleet.

A decoction of the tubers was administered as a stomachic, tonic in atonic dyspepsia.

-Indian Medicinal plants Volume IV page : 2500

In siddha- Root is used in "*diabetes*", cough, leucorrhoea, diseases of the pitta, pain, skin diseases, female aphrodisiac.

In Ayurvedic: the Root is used in urinary diseases, Gynaecological disorders, diseases of the nervous system, hyperacidity, gastritis, menorrhagia, eye diseases.

Fresh root juice mixed with honey and given in dyspepsia.

-Medicinal plants of India Volume II page : 62

It is useful in piles.

Decoction of its roots is given for fever, rheumatism and as sexual tonic.

The juice of the herbs with equal portion of cow's milk is used to remove calculi.

Manandhar reported that an infusion of the roots about 8 teaspoonful(42ml) is taken during bedtime as anthelmintic by the people of Myagdi district in Nepal.

- Medicinal plants and Raw drugs of India Page : 529

Root is employed in diarrhoea as well as in cases of chronic colic and dysentery.

Root is also used in rheumatism.

Phalagrita:

This is prepared with 4 seers (1120gm) of clarified butter and 16 seers(4480gm) each of the juice of Asparagus racemosces and cow's milk with the addition of a number of other medicines in small quantities in the form of paste. It's use increases the secretion of semen, cures barrenness in women and removes disorders of the female genitals.

Dose 1 drahm(4ml) twice a day.

A popular cooling and emollient medicated oil containing asparagus called “**Narayana taila**” is used externally in rheumatism, disease of the joints, stiff neck, hemiplegia and other diseases of the nervous system.

Vishnu taila an oil much used in Nervous disease and prepared with sesamum oil, cow's or goat's milk and the juice of Asparagus racemosus with the addition of a number of substances in small quantities in the form of a paste.

Prameha Mibira Taila-which is prepared with the juice of Asparagus racemosus, sesamum oil, decoction of lac, whey and milk with the addition of a number of substances in the form of a paste are very useful application. They are rubbed on the pubic region of the urethra and other diseases of the urinary organs.

Root boiled with some bland oil is used in various skin diseases.

Root is boiled in milk and the milk is administered to relieve bilious-dyspepsia and diarrhoea and to promote appetite.

Fresh root juice is given with honey as a demulcent.

Boiled leaves smeared with ghee are applied to boils, small pox etc. in order to prevent their confluence.

Root is given with honey in colic and with milk for secretion of milk.

-Medicinal plants in India page. 77.

In combination with other diuretic it is given in scanty urine, as a tonic it is used in seminal debility and pulmonary complaints.

-Materia medica of India and their Therapeutics page : 613

Root is used in inflammatory bowel conditions, blood purification, biliousness, edema, nervousness and fever.

- Ayurvedic pharmacognosy page : 40

The tuberous root is used in epilepsy, haemophilic disorders and swelling.

- Hand book of medicinal plants volume I page : 90

Take one(12gm) or two tolas(24gm) of *Tinospora cordifolia* are mixed with equal portion of *Asparagus racemosus*. It is to be taken with a little treacle, morning and evening. It is very useful for Rheumatic fever.

Take green *A.racemosus* one tola(12gm), *tribulus terrestris* one tola(12gm), water one and half pawa, cows milk half pawa, mix and boil for half an hour. The decoction is to be taken morning and evening. It is useful for bleeding from urinary system.

Root powder dry 15 to 20 grains(975 to 1300gm) are taken with one chattack(5ml) cold water for dysuria.

- Pharmacopoeia India page : 42

jz]zPh] tpl]lhd] fpH';F nrUk] kUe]Jfs]

1. rjhthp fpUjk]

thiHf] fpH';Fr] rhW

- 4 go(5.2ypl;lh;)

jz]zPh]tpl]lhd] fpH';Fr] rhW - 4 go ”
 ,sePh] - 4 go ”
 g[rdpf]fha]r] rhW - 4 go ”
 ,s';fd]iwa[ila gRtpd] ghy] - 4 go ”
 rPe]jpy] f#hak] - 4 go ”
 beU"]rpy] f#hak] - 2 go (2.6 ypl;lh;)
 fUg]g"]rhW - 2 go ”
 ePh]Ks]spf] f#hak] - 2 go ”
 xhpjH] jhkiur] rhW - 2 go ”
 bghd]dh'; fhdpr] rhW - 1 ehHp (1.3

yp;lh))

gRtpd] bea] - 1 ehHp ”
 ,itfis xd]W fye]J
 rpWgPis nth]
 Vyf]fha]
 vs]
 fy]kjk]
 bghd]dh';fhzp nth]
 bghd]D} kj]jk] tpiu
 Tif ePh]
 bre]eha[Utp nth]

ePh] Ks]sptpiu

njhwh]wh';bfhl]il

,itfs] tiff]F tuhfbdil(4.2 fpuhk;) tPjkbLj]J ,oj]J VnjDk] xU rhW
tpl]liuj]J rhW TI]oa bea]a[lid] FHg]gp/ mLg]gpd] nknyw]wp vhpj]Jg]
gjj]jpy] ,wf]fp tofl]of] bfhz]L bts]isr] rPdpr] rh]f]fiu 1 ehHpa[k] (1.3
ypl;lh;) njd] ½ goa[k] fye]J itj]Jf] bfhs]st[k].

fhiyapy] 3 fH"]R(15.3 fpuhk;) vLj]J cl] bfhz]lhy] iffhy; vhpr]ry]
kJnkfk]/ Rf]fpyg; gpukpak]/ \]jjpuf] fphpr]ruk] jPUk].

runge]jpuh] itj]jpa Kiwfs] Niy/

\y F#]l gpjj] nuhf/ Kiwfs] (248)

2. fhkur nyfpak]

mst[: jhd]wpcf]fhast[(500 kp.fp) ,Untis

jPUk] neha] : ePupHpt[

-mfj]jpah] itj]jpa fhtpak] 1500 gf]fk] 605

3. f';fhju Nuzk]

mst[: 2 tuhfd](8.4 fpuhk;) jpdk] 2 ntis

jPUk] neha] : nkfnuhf';fs]

-nkf epthuz nghjpdv vd]Dk]

ePuHpt[neha] kUj]Jtk] gf]fk] 191

4. fz]lhjpr] Nuzk]

mst[: 2 tuhfd](8.4 fpuhk;) jpdk] 2 ntis

mDghdk] : bea]/ jz]zPh]

-nkf epthuz nghjpdp vd]Dk]

ePuHpt[neha] kUj]Jtk] gf]fk] 193

5. ehtyhjpf] fpUjk]

mst[: $\frac{1}{4}$ - $\frac{1}{2}$ gyk]](8.75 -17.5fpuhk;) 2 ntis

-nkf epthuz nghjpdp vd]Dk]

ePuHpt[neha] kUj]Jtk] gf]fk] 209

6. btl]o nth] Nuzk]

mst[: 2 tpuy] bfhs]Skst[

mDghdk] : njd]

-mfj]jpah] ,uz]lhapuk] III ghfk] gf]fk] 171

7. gpunkf bea]

mst[: 2 Jyhk]](7fpuhk;),Untis miukz]lyk]

-rpnuhu]j]jpd tap]j]pa g[#{zk] gf]fk] 76

8. fy]ahzf] fpUjk]

mst[: 1 !]g[{}d] (4 kp.yp)2 ntis

-mfj]jpah] ,uz]lhapuk] \d]whk] ghfk] gf]fk] 273

9. rjhthp fpUjk]

mst[: 1 !]g[{}d](4kp.yp) jpdk] 2 ntis

-mfj]jpah] ,uz]lhapuk] \d]whk] ghfk] gf]fk] 273

10. rjthP ijk]

-mDgt it]j]pa njt ufrpak] gf]fk] 428

11. kfh rjthp ijk]

-mDgt it]j]pa njt ufrpak] gf]fk] 458

12. rjthP urhadk]

-mDgt it]j]pa njt ufrpak] gf]fk] 464

13. ePuHpt[f]Fj; ijk]

-mDgt it]j]pa njt ufrpak] gf]fk] 380

14. nkf F"]ru nfrhP urk]

-mDgt it]j]pa njt ufrpak] gf]fk] 513

15. g"]r nyhf urhadk]

-mDgt it]j]pa njt ufrpak] gf]fk] 514

16. ehhp nfs urhadk]

-mDgt it]j]pa njt ufrpak] gf]fk] 515

jz]zPh]tpl]lhd] fpH';F nrUk] gpw kUe]Jfs]

1. ePh]ts]spf] f#hak]

jPUk] neha] : tapw]wpYs]s g[z]fs]/ ePuilg]g]fs] Jh]khkpr';fs]

Kjyhd neha]fs] jPUk]

-runge]jpuh; it]j]pa Kiwfs]/

Niy/ \y F#]l gp]j] nuhf Kiwfs] (286)

2. Niy thjj]Jf]F ijk]

11 ehs] jiyapYk] clk]gpYk] g[{}rp tut[k]

runge]jpuh] itj]jpa Kiwfs] thj nuhf rpfpr]ir 110

3. jz]zPh]tp]lhd] fpH';F/ bfhj]jky]yp/ mjpkJuk]/ JK]guh#]lfk]/
nfhiufpH';F/ KRKRf;if/ Rf]F/ FW nth] ,itfis rk vil fpahHk] itj]J
bfhLj]jhy] gpj]jRuk] eP';Fk].

-mDgt itj]jpa njt ufrpak] gf]fk] 321

4. gh]g[{}uhjp nyfpak]

mst[: fHw]rpast[(500 kp.fp)

jPUK] neha] : kfh ra';fs]/ fhrk]/ Rthrk] jhfk]/ tpf]fy]/
nkfk]/ ehgp neha]/ gpj]jk]/ eP';Fk]

-mDgt itj]jpa njt ufrpak] gf]fk] 361

5. TH]khz]l fpUjk]

mst[: ¼ gyk] (8.75 fpuhk;)jpdk] 2 ntis

jPUK] neha] : #ak]/,Uky]^\]j]pufhj';fs]/ btF\]j]puk]/
uj]jFd]kk]/ ,Uja neha]fs] eP';Fk]

6. mkpUj QhPjfp

mst[: fLf]fhast[(500kp.fpuhk;)jpdk] 2 ntis

jPUK] neha]fs] : ghz]L

-mDgt itj]jpa njt ufrpak] gf]fk] 378

7. gpukPak] jPu kUe]J

-mfj]jpah] ml]ltiz thfk; 130

8. kyryf]fl]Lf]F kUe]J

ahnfhg[itj]jpa rpe]jhkzp 193

9. jz]zPh]tpl]lhd] bea]

mst[: 10-15 kpy;yp jpdk] ,U ntis

jPUK] neha]fs] : vd]g[r]Ruk]/ ePh]r]RUf]F/ bgUk]ghL/
,Uky]/ ,isg]g[

-Hospital Pharma copoeia (118)

10. fe]jf ,urhadk]

mst : 3 fpuhk]

jPUK] neha] : tsp 80/ mHy] 40/ Niy 18. fpue]jp
Fd]kk]/

btSg]g[- Cjy]/ nkfk]/ grpke]jk].

-g]ypp]ghzp- 500. gh. V. 324-

330

11. gw';fpg]gl]il urhadk]

mst[: 5 fpuhk] ,Untis

jPUK] neha] : khh]g[neha]/ nkfk]/ gw';fpg]g[z]/

fzlkhiy

Mz]Fwpg[w]W/

bgz]Fwpg]g[w]W/

nkfg]g[z]/

fpue]jp/ Niy/ tsp/ bts]is/ laneha]-96

-mfj]jpah] itj]jpa uj]d RUf]fk] gh. Vz] 114-118

12. rjhthpf] fpUjk]

mst[: cr]rpf]fuz]o(16kp.y) tPjk] jpdk] 2 ntis

mDghdk] : fw]fz]LJ}s] TI]o 1 kz]lyk]

jPUk] neha] : gps]isfSf]F fhqk] fzk]/ btl]ilr] NL

Kjypad eP';fp njfg[#]oa[k] tYt[k] cz]lhFk].

-mDgt itj]jpa njt ufrpak] 307

13. ,isj]njhh] bgUf vz]bza]

mst[: cr]rp fuz]oast[(16kp.y) miukz]lyk]

jPUk]neha; : bfw]gr]NL/ fug]ghd]/ brhhp rpu';F/
cly]tul]rp eP';Fk;. ,isj]j njfk]
bgUf]Fk].

-rpnuh]j]pd itj]jpa g[{rz]k] 93

14. J}Jtis nyfpak]

mst[: jhd]w]pf]fhast]/(500 kp.y) fhiy/ khiy/
kz]lyk]

jPUk]neha] : nkfk]/ gpukpak]/ vYk]g[Uf]fp/
gpunkfk]

-mf!]jpah] ghpg[{uzk] 400(128)

15. rjthpf] fpUjk]

mst : 2-3 njf]fuz]oast]/(8-12 kp.yp)

fhiy/ khiy ,Untis

jPUk] neha] : ePhf;fLg]g]/ ePh]RUf]F/ vYk]g[Uf]fp/ nkfuzk]/

nkfRuk]/ iffhbyhpt[eP';Fk]

-fz]qrhkp guk]giu itj]jpak] 241

16. rhfkhjpf] fpUjk]

mst[: 1-1 ½ njf]fuz]o (4-6 kp.yp),Untis

jPUk]neha] : fh]zNiy/ brtpL/ eht[/ fz]/ tha]/ fd]dk]/

,tw]iw gw]wpa thjk]/ ,Lg]g[thjk].

17. rjthp Nuzk]

mst[: fpuhk] \d;W ntis

mDghdk] : njd]/ rh]f]fiu

jPUk] neha] : Fuw]fk]ky]

-mDgt itj]jpa njtufrpak] 508

18. nkfNiy/ tPf]fj]Jf]F kUe]J

caph]fhf]Fk] rp]j] kUj]Jtk] 378

19. rjthP fpahHk]

mst[: 60. kp.yp ,Untis

mDghdk] : njd]/ rh]f]fiu

jPUk] neha] : \]jpuf]fphpr]ruk]

-mDgt itj]jpa njtufrpak] 527

20 rjhtpahjp fpUjk]

mst[: 5 kp.yp ,Untis

jPUk]neha] : \]j]puf]fphpr]ruk]

-mDgt itj]jpa njt ufrpak] 530

21 jz]zPh]tpl]lhd] vz]bza]

jPUk]neha] : rpw';F

-mfj]jpah] ,uz]lhapak] III ghfk] (67)

22. beU"]rpy] nyfpak]

mst[: ½ njhyh(6 fpuhk;) ,Untis

jPUk] neha] : rP]k]

-mfj]jpah] 2000 III ghfk] 207

23 rjhtp fpUjk]

mst[: 1 !]g[{}d](4 fpuhk) ,Untis

jPUk]neha] : !]j]phpfSf]F fh]g]gk] cz]lhFk]

-mfj]jpah] 2000 III ghfk] 294

24. jz]zPh]tpl]lhd] fpH';F bea]

mst[: 1 !]g[{}d](4 fpuhk) ,Untis

jPUk] neha] : ,uj]jgpj]jk]/ bgUk]ghL cl]Ruk]/ vYk]g[Uf]fp

-mfj]jpah] 2000 III ghfk] 320

25 jz]zPh]tpl]lhd] bea]

mst[: 1 !]g[{d}(4 fpuhk)] ,Untis

jPUk] neha; : g]rp njh#k]/ njiu njh#k]/ fhkhiy

-mfj]jpah] 2000 III ghfk] 504

26. jz]zPh]tpl]lhd] fpH';F bea]

mst[: 1 !]g[{d}(4 fpuhk)] ,Untis

jPUk] neha; : ,uj]gpj]jk]/ fPH]f]fhrk]/ bgUk]ghL/

vYk]g[Uf]fp/

be"]Rg]g[z]

-rpfpr]rhuj]e jPgk] vd]Dk] itj]jpa E}y] gf;fk; 455

27. re;jhd ,nyfpak]

mst[: ½ njhyh(6 fpuhk)] ,Untis

jPUk] neha] : ,uj] gpj] nuhfk]/ bgUk]ghL/

vYk]g[Uf]fp

neha]/ \]jpufphpr]ruk]/ gpukpak]

-rpfpr]rhuj]e jPgk] vd]Dk] itj]jpa E}y] gf;fk; 175

28. rjhtphf] fpUjk]

mst[: 1 !]g[{d}(4 fpuhk)] ,Untis

jPUk] neha; : fzr]NL jzp]J FHe]ijapd] njfk]

bfgik bgw]W ey]y mHFk] xspa[k] bgWk]

Materials and Methods

MATERIALS AND METHODS

In this dissertation the Thanneervittan Kizhangu chooranam was taken as a single drug study. This drug was prepared as per the specification given in the Literature, “*Gunapadam Mooligai Vaguppu page : 499*”

Collection of the Test drug

The Thanneervittan kizhangu choornam was collected from the raw drug store at Nagercoil, and was identified by the staffs of PG Gunapadam Department

Purification of Raw Drug:

The root of Thanneervittan Kizhangu are purified by removing unwanted particles and dried in the shade.

Preparation of the test Drug:

The root are grounded in the stone mortar in to a fine powder. Then it is filtered by a clean white cloth. (Vasthira Kayam). The choornam thus obtained were purified by the following method and stored in a clean dry container.

Purification of the prepared drug:

The Thanneervittan kizhangu choornam is first filtered by using a cotton cloth. A mud vessel containing equal quantities of cow's milk and

water is taken. A cotton cloth is tied tightly on the top of this vessel. The finely filtered choornam is then mixed with required quantities of cow's milk to make it into one mass.

This is kept on the cotton cloth and the mud vessel is covered on the top by another mud plate. Then the vessel is heated. When quantity of milk inside the vessel decreases to half of its quantity, the application of heat is withdrawn. Then the drug is taken out and then dried in the shade of sunlight. This is again filtered using a cotton cloth. Now the drug is ready for therapeutic use.

Route of Administration:

Enteral Route

Dose:

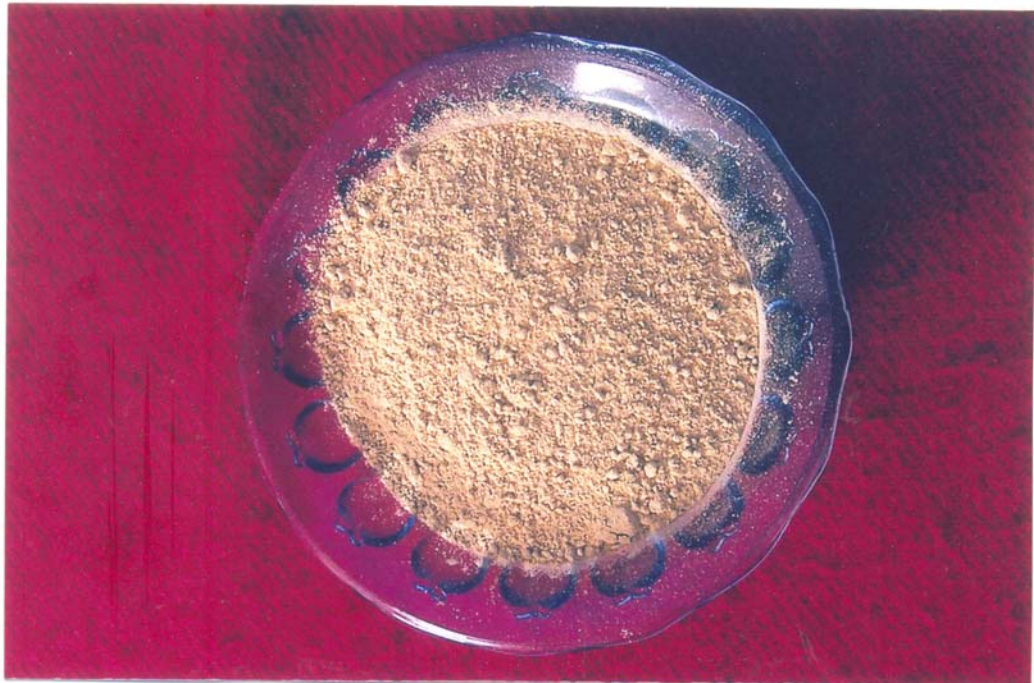
One gram three times a day with warm water after meals.

For all analysis this prepared Thanneervittan Kizhangu Chooranam was used.

Raw Drug Thanneervittan Kizhangu



Thanneervittan Kizhangu Chooranam



Bio-Chemical Analysis

BIO CHEMICAL ANALYSIS OF THANNEERVITTAN KIZHANGU CHLOORANAM

Preparation Of The Extract

5gms of Thanneervittan Kizhangu Choornam was weighed accurately and placed in a 250ml clean beaker. Then 50ml distilled water was added and dissolved well. Then it was boiled well for about 10 minutes. It is cooled and filtered in a 100ml volumetric flask and then it is made upto 100ml with distilled water. This fluid was taken for analysis

QUALITATIVE ANALYSIS

S. No	EXPERIMENT	OBSERVATION	INFERENCE
1.	<u>TEST FOR CALCIUM</u> 2ml of the above prepared extract is taken in a clean test tube. 2ml of 4% Ammonium oxalate solution is added to it.	No white precipitate is formed	Absence of Calcium
2.	<u>TEST FOR SULPHATE:</u> 2ml of the extract is added to 5% barium chloride solution	No white precipitate is formed	Absence of Sulphate
3.	<u>TEST FOR CHLORIDE</u> The extract is treated with silver nitrate solution.	No white precipitate is formed	Absence of chloride

4.	<u>TEST FOR CARBONATE</u> The substance is treated with concentrated HCL	No brisk effervescence is formed	Absence of carbonate
5.	<u>TEST FOR STARCH</u> The extract is added with weak iodine solution	No blue colour is formed	Absence of starch
6.	<u>TEST FOR IRON-FERRIC</u> The extract is treated with concentrated Glacial acetic acid and potassium ferrocyanide	No blue colour is formed	Absence of ferric
7.	<u>TEST OF IRON FERROUS:</u> The extract is treated with concentrated Nitric acid and ammonium thiocyanate	bloodred colour is formed	Indicates the presence of ferrous iron
8.	<u>TEST FOR PHOSPHATE</u> The extract is treated with ammonium Molybdate and concentrated nitric acid	No Yellow precipitate is formed	Absence of phosphate
9.	<u>TEST FOR ALBUMIN</u> The extract is treated with Esbach's reagent	No yellow precipitate is formed	Absence of Albumin
10.	<u>TEST FOR TANNIC ACID</u> The extract is treated with ferric chloride	No white precipitate is formed	Absence of Tannic Acid

11.	<p><u>TEST FOR UNSATURATION</u></p> <p>Potassium permanganate solution is added to the extract.</p>	It gets decolourised	Indicates the presence of unsaturated compound
12.	<p><u>TEST FOR THE REDUCING SUGAR</u></p> <p>5ml of Benedict quantitative solution is taken in a test tube and allowed to boil for 2mts and added 8-10 drops of the extract and again boil it for 2 mts.</p>	Colour change occurs	Indicates the presence of reducing Sugar
13.	<p><u>TEST FOR AMINO ACID:</u></p> <p>One or two drops of the extract is placed on a filter paper and dried it well. After drying, 1% Ninhydrin is sprayed over the same and dried it well.</p>	No violet colour is formed	Absence of Amino-acid

Inference :

The given sample of Thanneervittan Kizhangu Chooranam contains Ferrous iron unsaturated compound and reducing sugar

Pharmacological Analysis

PHARMACOLOGICAL ANALYSIS

Hypoglycaemic Study of *Thanneervittan kizhangu chooranam*

As per the reference *Thanneervittan kizhangu chooranam* is indicated for Madhumegam.

Reasons for choice of rabbit:

1. Can be handled easily
2. Several number of blood samples can be taken
3. Blood sugar regulation is more stable and more predictable than rat or mice.

Aim

To evaluate hypoglycaemic activity of *Thanneervittan kizhangu chooranam*

Materials and Methods:

The test drug 1gm of *Thanneervittan kizhangu chooranam* in 5ml of water 2ml of test drug was given to test group.

Procedure:

Six healthy young rabbits fasted for 18 hours weighing 1-1 ½ kg were selected. Rabbits were kept in a clean condition. Before drug

administration fasting blood samples were drawn from marginal ear vein of rabbits at 0hr for blood sugar analysis.

Then 6 rabbits are divided into 3 groups each containing 2 groups. 2 rabbits received 5ml of water and kept as a control group. The second group of rabbits received 1mg of Glibenclamide per 1kg body weight and kept as standard group. Third group of rabbits received 1gm/kg of test drug. Then the blood samples were collected at 1 ½ hrs and 3hrs after drug administration. During the experiment period the rabbits were fasted till the net Blood sugar was estimated according to Enzymatic method.

Result

Details of experiments and results are shown in the Table

Sl. No	Name of Drugs/ Groups	Dose per Kg of Body weight	Value of fasting samples	Value of PP samples after 1 ½ hrs	Reduction difference in mgs	Percentage reduction	Remarks
1.	Control	Water 5ml	80mg	81mg	-	-	No
2.	Standard	Glibenclamide 3mg	91mg	62mg	29mg	31.86mg	Good
3.	Test Drug	1g	102mg	80mg	20mg	20mg	Significant

Inference

The test drug Thanneervittan kizhangu Chroornam shows 20% reduction in blood sugar level when compared with standard drug. It shows significant hypoglycaemic action when compared to that of standard drug.

Antimicrobial Study

ANTI MICROBIAL STUDY

TESTING FOR THANNEERVITTAN KIZHANGU CHORANAM DISC SENSITIVITY BY KIRBY BAYER METHOD

The sensitivity of the disc is determined by Kirby Bayer method.

Aim:

To determine the anti microbial activity of an antibiotic against the test organism.

Principle

The principle of antibiotic sensitivity test is simple, disc saturated with known concentration of antibiotic are placed on agar plates that has been inoculated with the test organism. The disc pickup the moisture and the antibiotic diffuse radially outward through the agar producing and antibiotic concentration. Gradient effectiveness of susceptibility is proportional to the diameter of the inhibitory zone around the disc. Organism which grow up to the edge of the disc are resistant.

The recommended medium in this test Muller Hinton agar its PH should be between 7.2 to 7.4 and should be poured to uniform thickness of 4mm in the petri plates 25ml for certain fastidious micro organism.

Methodology

- Muller Hinton agar plates are prepared and to its pseudomonas, E.coli, Streptococcus, Klebsiella, Staphylococcus, candida are swabbed separately allow this for 5minutes for the agar surface to dry before applying discs.
- To the prepared disc for antibiotics Thanneervittan Kizhangu Chooranam are saturated using sterile forceps and incubated for 24 hrs at 37°C
- The plates after 24hrs incubated are observed for zone of incubation.

Results:

The diameter of zone of inhibition of Thanneervittan Kizhangu Chooranam on

Staphylococcus aureus 10ml

Kirby Bayer Anti Microbial Susceptibility Method

Table

Sl No	Organism	Medium	Susceptibility	
			Sensitivity	Resistants
1.	Staphylococcus aureus	Nutrient Broth	Sensitive 10mm	Resistance
2.	Pseudomonas aeruginosa		Resistance	Resistance
3.	E.coli		Resistance	Resistance
4.	Proteus		Resistance	Resistance
5	Streptococcus		Resistance	Resistance
6.	Candida		Resistance	Resistance

**Antimicrobial Study on Thanneervittan
Kizhangu Chooranam Sensitive against
Staphylococcus**



Clinical Assessment

CLINICAL ASSESSMENT

A clinical trial on the hypoglycaemic activity of Thanneervittan Kizhangu Chooranam in treating Madhumegam is carried out at the Govt. Siddha Medical College Hospital, Palayamkottai. This study was carried out under the proper guidance of Teaching Staffs of the post graduate Gunapadam Department.

35 cases with clinical signs and symptoms of Madhumegam of both sexes with age ranging from 42 to 80 years are selected and treated in the Post Graduate Department of Gunapadam, Govt. Siddha Medical College, Palayamkottai. 30 cases were treated as for out patients and 5 cases were treated as inpatients.

The patients were selected as Madhumegam according to the following including and excluding criteria.

Criteria For case selection:

Inclusion Criteria

1. Polyuria
2. Polyphagia
3. Polydipsia
4. Nocturia
5. Tiredness and general weakness

6. Giddiness
7. Pruritus
8. Numbness and Burning sensation in the soles
9. Increased Blood Sugar Levels
 - Fasting more than 120% mg
 - Post prandial more than 160 mg%
10. Presence of urine sugar
11. Positive Family History

Exclusion Criteria

1. Early onset of diabetes Mellitus (juvenile DM. IDDM)
2. Iatrogenic Diabetes – Corticosteroids and thiazide diuretics
3. Patients have hyperglycaemia due to hormonal disorder like
Acromegaly Cushing's syndrome, Hyper thyroidism etc.
4. Patients having diabetes with coronary heart disease and dehydrated
with dry skin.
5. Patient with clinical or laboratory evidence of preexisting
Hepatobiliary disease chronic active hepatitis, HBV infection
cholecystitis and Gall stone disease.
6. Pancreatic Diabetes- Pancreatic carcinoma, Haemochromatosis,
Diabetic ketoacidosis

Clinical Pathological Examination

Blood Test:

Fasting blood sugar

Postprandial blood sugar

Urea

Serum Cholesterol

WBC / TC DC

ESR

Hb were done

Urine Analysis:

Albumin

Sugar : Fasting and post prandial

Deposits

Drug:

The patients were orally administered **Thanneervittan kizhangu chooranam** 1gm with hot water thrice a day after meals.

Pattern of Study

Biochemical analysis of blood sugar (Fasting and Post Prandial) are carried out before and after treatment. In the case of out-patient urine sugar(Post prandial) were estimated every week and fasting and post prandial Blood sugar estimation was done on every month. In case of

inpatients urine sugar was done on every five days. Patients were strictly instructed to follow the instructions given below.

1. Not to take any other anti-diabetic drug of any other system, whether in indigenous or modern, when they are on trail.
2. Incidental ailments are treated with appropriate Siddha Medicine.
3. Advised to attend outpatients department every week for the collection of Medicine, Urine Examination and the blood sugar estimation for every fifteen days.
4. Advised to follow the diatetic regimen given to them on registration under this clinical trial.

Tabulations showing age and sex.

S. No	Age Group	No of Patients	Sex	
			Male	Female
1.	42-44	3	3	-
2.	45-49	9	5	4
3.	50-54	7	2	5
4.	55-59	5	1	4
5.	60-64	5	3	2
6.	65-69	3	2	1
7.	70-75	2	1	1
8.	75-80	1	-	1
	Total	35	17	18

1. Name: Lakshmi		Age/Sex: 65/F		O.P. No: 9		From: - 9 -1-07		To- 1-3 -07		No. of days treated: 51	
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 1 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 58 kg					Wt.60 kg				
		B.P.: 110 /70 mm of Hg					B.P.: 110 /80 mm of Hg				
		Blood :					Urine:		Blood :		
Blood Sugar		TC- 9400 Cells/cumm		Alb -Nil		Blood Sugar		TC- 9500Cells/cumm		Alb - Nil	
Fasting 140 mg %		DC- P- 56 %		Sug -		Fasting - 110 mg%		DC- P- 60%		Sug -	
Post Prandial -209 mg%		L- 40 %		F -++		Post Prandial - 150 mg%		L- 36%		F - Nil	
Serum Cholesterol -165 mg%		E- 4 %		PP -+++		Serum Cholesterol - 160mg%		E- 4%		PP - Nil	
Blood Urea - 17 mg %		ESR- ½ hr - 10 mm		Dep- NAD		Blood Urea - 18mg%		ESR- ½ hr -10 mm		Dep- NAD	
		1hr - 25mm						1hr - 22mm			
		Hb- 75 %						Hb- 78 %			
		Response : Good Response									
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		+++	++	++	+	+	-	-	-	-	-

2. Name:Raman		Age/Sex: 36 /M		O.P. No: 2236		From: - 21 -5-07		To- 12-5 -07		No. of days treated: 53	
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 68 kg					Wt.66 kg				
		B.P.: 130 /80 mm of Hg					B.P.: 130/ 80 mm of Hg				
		Blood :					Urine:		Blood :		
Blood Sugar		TC- 9800Cells/cumm		Alb -Nil		Blood Sugar		TC- 9600 Cells/cumm		Alb - Nil	
Fasting - 148mg %		DC- P- 52 %		Sug -		Fasting - 72mg%		DC- P- 56 %		Sug -	
Post Prandial - 213mg%		L- 40 %		F - nil		Post Prandial - 163 mg%		L- 40%		F - Nil	
Serum Cholesterol -164 mg%		E- 8 %		PP - ++		Serum Cholesterol -164 mg%		E- 4%		PP -Nil	
Blood Urea - 19mg %		ESR- ½ hr - 8 mm		Dep- NAD		Blood Urea - 20mg%		ESR- ½ hr -6 mm		Dep- NAD	
		1hr - 15 mm						1hr - 14 mm			
		Hb- 72 %						Hb- 74 %			
		Response : Good Response									
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++	++	++	+	+	Nil	Nil	Nil	-	-

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

3. Name: Asanaar		Age/Sex: 67/M		O.P. No: 8183		From: - 24 -1-07		To- 14 -3 -07		No. of days treated: 48	
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 70 kg					Wt. kg 70				
		B.P.: 120/ 80 mm of Hg					B.P.: 120 /80 mm of Hg				
		Blood :					Urine:		Blood :		
Blood Sugar		TC- 9200 Cells/cumm		Alb -Nil		Blood Sugar		TC- 9200Cells/cumm		Alb - Nil	
Fasting 152 mg %		DC- P- 70 %		Sug -		Fasting - 123mg%		DC- P- 66 %		Sug -	
Post Prandial - 210mg%		L- 22%		F - +		Post Prandial - 170 mg%		L- 32%		F - Nil	
Serum Cholesterol -161 mg%		E- 8%		PP -++		Serum Cholesterol -160 mg%		E- 2%		PP - Nil	
Blood Urea - 21mg %		ESR- ½ hr -7 mm		Dep- NAD		Blood Urea - 22mg%		ESR- ½ hr - 10 mm		Dep- NAD	
		1hr - 11 mm						1hr - 15mm			
		Hb- 76%						Hb- 78 %			
		Response : Good Response									
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++	++	++	+	+	Nil	Nil	-	-	-

4. Name: Murugesan		Age/Sex: 41 /M		O.P. No: 10124		From: - 31 -1-07		To- 14-3 -07		No. of days treated: 45	
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM					
Complaints of Itching in the Genital Area Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 66 kg					Wt.66 kg				
		B.P.: 120/70 mm of Hg					B.P.: 120/80 mm of Hg				
		Blood :					Urine:		Blood :		
Blood Sugar		TC- 9400 Cells/cumm		Alb -Nil		Blood Sugar		TC- 9600 Cells/cumm		Alb - Nil	
Fasting- 143 mg %		DC- P- 56 %		Sug -		Fasting - 117 mg%		DC- P- 58 %		Sug -	
Post Prandial - 230mg%		L- 42 %		F - Nil		Post Prandial - 180 mg%		L- 40 %		F - Nil	
Serum Cholesterol - 250mg%		E- 2 %		PP -++		Serum Cholesterol - mg%		E- 2 %		PP -Nil	
Blood Urea - 35mg %		ESR- ½ hr -5 mm		Dep- 1-2 puscells		Blood Urea - mg%		ESR- ½ hr - 5 mm		Dep- NAD	
		1hr - 9 mm						1hr - 8mm			
		Hb- 75 %						Hb- 76 %			
		Response : Good Response									
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++	++	+	+	Nil	Nil	Nil	-	-	-

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

5. Name: Mohamedmasoath		Age/Sex: 47/F		O.P. No: 10655		From: - 2 -2-07		To- 21-3 -07		No. of days treated: 47			
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM							
Complaints of Pain in the Shoulder Joint Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 5 years	INVESTIGATIONS												
	Before treatment					Wt. 70 kg		After treatment					Wt.72 kg
	B.P.: 130/80 mm of Hg						B.P.: 130/ 80 mm of Hg						
	Blood :				Urine:		Blood :				Urine:		
	Blood Sugar Fasting -186 mg % Post Prandial – 251mg% Serum Cholesterol – 150mg% Blood Urea – 39 mg %		TC- 9600 Cells/cumm DC- P- 64 % L- 34% E- 2 % ESR- ½ hr – 10 mm 1hr – 18 mm Hb- 78 %		Alb –Nil Sug – F - + PP - +++) Dep- NAD		Blood Sugar Fasting -100 mg% Post Prandial – 152 mg% Serum Cholesterol – 152mg% Blood Urea – 38mg%		TC- 9600Cells/cumm DC- P- 62% L- 34 % E- 4% ESR- ½ hr –10 mm 1hr – 15mm Hb- 78 %		Alb – Nil Sug – F - Nil PP - Nil Dep- NAD		
Response : Good Response													
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
		+++	+++	++	++	+	+	Nil	Nil	-	-		

6. Name: Rani		Age/Sex: 47/F		O.P. No: 10786		From: - 2 -2-07		To- 16-3 -07		No. of days treated: 42			
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM							
Complaints of Body pain Giddiness Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years	INVESTIGATIONS												
	Before treatment					Wt. 70kg		After treatment					Wt.72 kg
	B.P.: 150/90 mm of Hg						B.P.: 150 /90 mm of Hg						
	Blood :				Urine:		Blood :				Urine:		
	Blood Sugar Fasting - 130mg % Post Prandial – 212mg% Serum Cholesterol – 192mg% Blood Urea – 30mg %		TC- 9500 Cells/cumm DC- P- 64 % L- 34% E- 2% ESR- ½ hr – 10 mm 1hr – 25mm Hb- 75%		Alb –Nil Sug – F - Nil PP -Trace Dep- Few Epithelial cells		Blood Sugar Fasting - 80 mg% Post Prandial – 150 mg% Serum Cholesterol –192 mg% Blood Urea – 33mg%		TC- 9600 Cells/cumm DC- P- 66 % L- 32% E- 2% ESR- ½ hr – 8 mm 1hr – 16mm Hb- 66 %		Alb – Nil Sug – F - Nil PP -Nil Dep- NAD		
Response : Good Response													
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
		+	+	Nil	Nil	Nil	Nil	-	-	-	-		

Good response– Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

7. Name: Arputhamani		Age/Sex: 50/F		O.P. No:10184		From: - 31 -1-07		To- 21- 3-07		No. of days treated: 50					
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM									
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 1 year	INVESTIGATIONS														
	Before treatment					Wt. 68 kg			After treatment					Wt.66 kg	
	B.P.: 120/80 mm of Hg											B.P.: 120/ 80 mm of Hg			
	Blood :					Urine:			Blood :					Urine:	
	Blood Sugar		TC- 9400 Cells/cumm			Alb -Nil			Blood Sugar		TC- 9400Cells/cumm			Alb - Nil	
Fasting - 150 mg %		DC- P- 62 %			Sug -			Fasting - 80 mg%		DC- P- 64%			Sug -		
Post Prandial - 267mg%		L- 36%			F - Nil			Post Prandial - 169 mg%		L- 32 %			F - Nil		
Serum Cholesterol - 165mg%		E- 2%			PP - ++			Serum Cholesterol - 163mg%		E- 4 %			PP -Nil		
Blood Urea - 28mg %		ESR- ½ hr - 4 mm			Dep- NAD			Blood Urea - 28 mg%		ESR- ½ hr - 4 mm			Dep- NAD		
		1hr - 11mm								1hr - 10mm					
		Hb- 75 %								Hb- 78 %					
Response : Good Response															
No of Weeks after Urine Sugar-PP	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th					
	++	++	+	+	+	Nil	Nil	Nil	-	-					

8. Name: Pattammal		Age/Sex: 55/F		O.P. No: 10247		From: - 31 -1-07		To- 14-3 -07		No. of days treated: 43					
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM									
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years	INVESTIGATIONS														
	Before treatment					Wt.56 kg			After treatment					Wt. 58kg	
	B.P.: 130 /80 mm of Hg											B.P.: 130 /80 mm of Hg			
	Blood :					Urine:			Blood :					Urine:	
	Blood Sugar		TC- 9400 Cells/cumm			Alb -Nil			Blood Sugar		TC- Cells/cumm			Alb - Nil	
Fasting -136 mg %		DC- P- 54 %			Sug -			Fasting - 90 mg%		DC- P- 56 %			Sug -		
Post Prandial - 220mg%		L- 44%			F - Nil			Post Prandial - 160 mg%		L- 42%			F -Nil		
Serum Cholesterol - 163mg%		E- 2%			PP -++			Serum Cholesterol - 160mg%		E- 2%			PP - Nil		
Blood Urea - 32mg %		ESR- ½ hr - 12 mm			Dep- Dep			Blood Urea - 32mg%		ESR- ½ hr - 12 mm			Dep- NAD		
		1hr - 25mm								1hr - 20mm					
		Hb- 69 %								Hb- 72 %					
Response : Good Response															
No of Weeks after Urine Sugar-PP	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th					
	++	++	+	+	Nil	Nil	Nil	-	-	-					

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

9. Name: Subulakshmi		Age/Sex: 57/F		O.P. No: 10275		From: - 31-1-07		To- 13-3 -07		No. of days treated: 42			
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM							
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 1 year	INVESTIGATIONS												
	Before treatment					Wt. 63 kg			After treatment			Wt.65 kg	
	B.P.: 140/90 mm of Hg								B.P.: 140/90 mm of Hg				
	Blood :					Urine:			Blood :			Urine:	
	Blood Sugar Fasting - 170mg % Post Prandial -315 mg% Serum Cholesterol -156 mg% Blood Urea - 29mg %		TC- 9200 Cells/cumm DC- P- 60% L- 38% E- 2% ESR- ½ hr - 20 mm 1hr - 38mm Hb- 61%		Alb -Nil Sug - F - Nil PP -+++ Dep- NAD		Blood Sugar Fasting - 110mg% Post Prandial - 180 mg% Serum Cholesterol -159 mg% Blood Urea - 19mg%		TC- 9500 Cells/cumm DC- P- 52 % L- 36% E- 12% ESR- ½ hr - 30 mm 1hr - 48mm Hb- 70%		Alb - Nil Sug - F - Nil PP -Nil Dep- Few Epithelial cells		
Response : Good Response													
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
		+++	+++	++	+	+	Nil	-	-	-	-		

10. Name: Karthikeyan		Age/Sex: 45/F		O.P. No: 10653		From: -2-2-07		To- 7-3 -07		No. of days treated: 34			
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM							
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 6 Months	INVESTIGATIONS												
	Before treatment					Wt. 80 kg			After treatment			Wt. 80kg	
	B.P.: 130 /80 mm of Hg								B.P.: 130/80 mm of Hg				
	Blood :					Urine:			Blood :			Urine:	
	Blood Sugar Fasting -140 mg % Post Prandial - 215mg% Serum Cholesterol -190 mg% Blood Urea - 32mg %		TC- 9200 Cells/cumm DC- P- 64 % L- 32% E- 4% ESR- ½ hr - 4 mm 1hr - 8mm Hb- 78%		Alb -Nil Sug - F - Nil PP -+++ Dep- NAD		Blood Sugar Fasting - 92 mg% Post Prandial - 168 mg% Serum Cholesterol -190 mg% Blood Urea - 30mg%		TC- 9400Cells/cumm DC- P- 66% L- 32% E- 2% ESR- ½ hr - 5 mm 1hr - 10mm Hb- 78 %		Alb - Nil Sug - F - Nil PP -Nil Dep- NAD		
Response : Good Response													
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
		+++	++	++	+	Nil	Nil	-	-	-	-		

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

11. Name: Paappa		Age/Sex: 60/F		O.P. No: 10248		From: 31-01-07		To- 21-03-07		No. of days treated: 57	
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 62 kg					Wt. 62kg				
		B.P.: 130/90 mm of Hg					B.P.: 30/90 mm of Hg				
		Blood :					Urine:		Blood :		
Blood Sugar		TC- 9200 Cells/cumm		Alb -Nil		Blood Sugar		TC- 9200 Cells/cumm		Alb - Nil	
Fasting 240 mg %		DC- P- 55 %		Sug -		Fasting - 183 mg%		DC- P- 58 %		Sug -	
Post Prandial - 300mg%		L- 42 %		F - ++		Post Prandial - 230 mg%		L- 40 %		F - +	
Serum Cholesterol - 160mg%		E- 3 %		PP - +++++		Serum Cholesterol - 161mg%		E- 2 %		PP - ++	
Blood Urea - 32 mg %		ESR- ½ hr - 6 mm		Dep- NAD		Blood Urea - 26 mg%		ESR- ½ hr - 5 mm		Dep- NAD	
		1hr - 10 mm						1hr - 10 mm			
		Hb- 70 %						Hb- 71 %			
Response : Poor Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++++	++++	+++	+++	+++	++	++	++	-	-

12. Name: Thangarajan		Age/Sex: 64/F		O.P. No:8460		From: - 24 -1-07		To- 28-3 -07		No. of days treated: 42	
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness , Giddiness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 10 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 78 kg					Wt. 80kg				
		B.P.: 150/90 mm of Hg					B.P.: 140 / 90 mm of Hg				
		Blood :					Urine:		Blood :		
Blood Sugar		TC- 9800 Cells/cumm		Alb -Nil		Blood Sugar		TC- 9800Cells/cumm		Alb - Nil	
Fasting - 190 mg %		DC- P- 67 %		Sug -		Fasting - 180 mg%		DC- P- 66%		Sug -	
Post Prandial - 348mg%		L- 30%		F - ++		Post Prandial - 281 mg%		L- 32 %		F - +	
Serum Cholesterol -214 mg%		E- 3 %		PP -++++		Serum Cholesterol - 210mg%		E- 2 %		PP - ++	
Blood Urea - 32 mg %		ESR- ½ hr - 2 mm		Dep- NAD		Blood Urea - 30mg%		ESR- ½ hr -4 mm		Dep- NAD	
		1hr - 5 mm						1hr - 8 mm			
		Hb- 76 %						Hb- 78 %			
Response : Poor Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++++	++++	+++	++	++	++	-	-	-	-

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

13. Name: Padma		Age/Sex: 51/F		O.P. No: 15724		From: - 21-3-07		To- 21- 3-07		No. of days treated: 30	
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Insomnia Excessive excretion of Urine Thirst History of NIDDM since 3 months		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 56 kg					Wt.58 kg				
		B.P.: 120/ 80 mm of Hg					B.P.: 120/80 mm of Hg				
		Blood :					Urine:				
Blood Sugar		TC- 9000 Cells/cumm			Alb –Nil		Blood Sugar			TC- 9200 Cells/cumm	
Fasting - 123 mg %		DC- P- 58 %			Sug –		Fasting - 78mg%			DC- P- 56 %	
Post Prandial – 220mg%		L- 40%			F - Nil		Post Prandial – 156 mg%			L- 40%	
Serum Cholesterol – 180mg%		E- 2%			PP -+		Serum Cholesterol – 161mg%			E- 4%	
Blood Urea – 17mg %		ESR- ½ hr – 3 mm			Dep- Few epithelial Cells		Blood Urea – 20mg%			ESR- ½ hr –3 mm	
		1hr – 6mm								1hr – 8 mm	
		Hb- 69%								Hb- 72 %	
Response : Good Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		+	+	Nil	Nil	Nil	-	-	-	-	-

14. Name: Thangamoney		Age/Sex: 53/F		O.P. No:17600		From: -28-2-07		To- 11-4 -07		No. of days treated: 43	
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 65 kg					Wt.66 kg				
		B.P.: 120/80 mm of Hg					B.P.: 120/80 mm of Hg				
		Blood :					Urine:				
Blood Sugar		TC-9800 Cells/cumm			Alb –Nil		Blood Sugar			TC-9600 Cells/cumm	
Fasting -160 mg %		DC- P- 70 %			Sug –		Fasting - 92 mg%			DC- P- 66 %	
Post Prandial –230 mg%		L- 22%			F -Nil		Post Prandial – 148 mg%			L- 26%	
Serum Cholesterol –185 mg%		E- 8%			PP -++		Serum Cholesterol –156 mg%			E- 8%	
Blood Urea – 25 mg %		ESR- ½ hr – 10 mm			Dep- Few epithelial cells		Blood Urea – 24mg%			ESR- ½ hr – 10 mm	
		1hr – 24mm								1hr – 20 mm	
		Hb- 78 %								Hb- 76 %	
Response : Good Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++	++	+	+	Nil	Nil	-	-	-	-

Good response– Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

15. Name: Gurunathan		Age/Sex: 42/F		O.P. No: 17669		From: -28 -2-07		To- 12-4 -07		No. of days treated: 44			
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM							
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years	INVESTIGATIONS												
	Before treatment					Wt. 68 kg			After treatment			Wt.70 kg	
	B.P.: 120/80 mm of Hg								B.P.: 120 /80 mm of Hg				
	Blood :					Urine:			Blood :			Urine:	
	Blood Sugar Fasting - 124mg % Post Prandial –260 mg% Serum Cholesterol –164 mg% Blood Urea – 30mg %		TC- 10200 Cells/cumm DC- P- 70 % L- 24 % E- 6% ESR- ½ hr – 6 mm 1hr – 14mm Hb- 78 %		Alb –Nil Sug – F - Nil PP -++ Dep- NAD		Blood Sugar Fasting - 95 mg% Post Prandial – 158 mg% Serum Cholesterol –168 mg% Blood Urea – 28mg%		TC- 10200 Cells/cumm DC- P- 64 % L- 34 % E- 2% ESR- ½ hr – 5 mm 1hr – 12 mm Hb- 76 %		Alb – Nil Sug – F - Nil PP -Nil Dep- NAD		
Response : Good Response													
No of Weeks after Urine Sugar-PP	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th			
	++	++	+	+	Nil	Nil	Nil	-	-	-			

16. Name: Velammal		Age/Sex: 58 /F		O.P. No: 17836		From: - 1 -3-07		To- 12- 4-07		No. of days treated: 44			
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM							
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 1 year	INVESTIGATIONS												
	Before treatment					Wt. 60 kg			After treatment			Wt. 62kg	
	B.P.: 150/90 mm of Hg								B.P.: 140 /90 mm of Hg				
	Blood :					Urine:			Blood :			Urine:	
	Blood Sugar Fasting -182 mg % Post Prandial – 236mg% Serum Cholesterol –149 mg% Blood Urea – 24mg %		TC- 9500 Cells/cumm DC- P- 50 % L- 48% E- 2% ESR- ½ hr –12 mm 1hr – 25mm Hb- 75 %		Alb –Nil Sug – F - Nil PP -++ Dep- 1-2 Puscells		Blood Sugar Fasting - 121mg% Post Prandial – 178 mg% Serum Cholesterol –152 mg% Blood Urea – 24mg%		TC-9400 Cells/cumm DC- P-56 % L- 42% E- 2% ESR- ½ hr – 10 mm 1hr – 22mm Hb- 75%		Alb – Nil Sug – F - Nil PP -Nil Dep- NAD		
Response : Good Response													
No of Weeks after Urine Sugar-PP	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th			
	++	++	+	+	Nil	Nil	Nil	-	-	-			

Good response– Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

17. Name: Manohar		Age/Sex: 49 /F		O.P. No:23670		From: -27-3-07		To- 18-4 -07		No. of days treated: 53					
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM									
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 1 year	INVESTIGATIONS														
	Before treatment					Wt. 70 kg			After treatment					Wt.70 kg	
	B.P.: 140 /90 mm of Hg											B.P.: 140/ 80 mm of Hg			
	Blood :					Urine:			Blood :					Urine:	
	Blood Sugar		TC- 9400 Cells/cumm		Alb -Nil		Blood Sugar		TC- 9600Cells/cumm		Alb - Nil				
Fasting -150 mg %		DC- P- 64 %		Sug -		Fasting - 110 mg%		DC- P- 64 %		Sug -					
Post Prandial -228 mg%		L- 34%		F - Nil		Post Prandial - 155 mg%		L- 32%		F - Nil					
Serum Cholesterol -242 mg%		E- 2%		PP -+++		Serum Cholesterol -240 mg%		E- 4%		PP -Nil					
Blood Urea - 28mg %		ESR- ½ hr -5 mm		Dep- NAD		Blood Urea - 26mg%		ESR- ½ hr - 5 mm		Dep- NAD					
		1hr - 8mm						1hr - 10 mm							
		Hb- 75 %						Hb- 76 %							
Response : Good Response															
No of Weeks after Urine Sugar-PP	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th					
	+++	+++	++	++	++	+	Nil	Nil	-	-					

18. Name: Ponnusamy		Age/Sex: 70/F		O.P. No: 19825		From: 9-3 -07		To- 6-4 -07		No. of days treated: 28					
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM									
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 3 Months	INVESTIGATIONS														
	Before treatment					Wt. 80 kg			After treatment					Wt.80 kg	
	B.P.: 130/70 mm of Hg											B.P.: 130 /80 mm of Hg			
	Blood :					Urine:			Blood :					Urine:	
	Blood Sugar		TC- 9400 Cells/cumm		Alb -Nil		Blood Sugar		TC-9400 Cells/cumm		Alb - Nil				
Fasting -136 mg %		DC- P- 60 %		Sug -		Fasting - 80 mg%		DC- P-56 %		Sug -					
Post Prandial -210 mg%		L- 36%		F - Nil		Post Prandial - 168 mg%		L- 38 %		F - Nil					
Serum Cholesterol -172 mg%		E- 4%		PP -++		Serum Cholesterol -168 mg%		E- 6 %		PP - Nil					
Blood Urea - 42 mg %		ESR- ½ hr - 8 mm		Dep- Nil		Blood Urea - 21 mg%		ESR- ½ hr -6 mm		Dep-1-2 Puscells					
		1hr - 17mm						1hr - 12 mm							
		Hb- 75 %						Hb- 76 %							
Response : Good Response															
No of Weeks after Urine Sugar-PP	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th					
	++	++	+	Nil	Nil	-	-	-	-	-					

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

19. Name: Manonmoni		Age/Sex:49/F		O.P. No: 19302		From: -7-3-07		To- 4-4 -07		No. of days treated: 30					
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM									
Complaints of Body pain Tiredness Numbness in both soles Blurring of Vision Excessive excretion of Urine Thirst History of NIDDM since 2 years	INVESTIGATIONS														
	Before treatment					Wt. 54 kg			After treatment					Wt.57 kg	
	B.P.: 110/70 mm of Hg											B.P.: 110/ 70 mm of Hg			
	Blood :					Urine:			Blood :					Urine:	
	Blood Sugar		TC- 9400 Cells/cumm			Alb -Nil			Blood Sugar		TC- 9400 Cells/cumm			Alb - Nil	
Fasting -160 mg %		DC- P- 64 %			Sug -			Fasting - 92 mg%		DC- P- 62 %			Sug -		
Post Prandial -234 mg%		L- 34 %			F - Nil			Post Prandial - 161 mg%		L- 34%			F - Nil		
Serum Cholesterol -167 mg%		E- 2%			PP -++			Serum Cholesterol - 168mg%		E- 4 %			PP -Nil		
Blood Urea - 27mg %		ESR- ½ hr -25 mm			Dep- NAD			Blood Urea - 22mg%		ESR- ½ hr - 22 mm			Dep- NAD		
		1hr - 52mm								1hr - 48mm					
		Hb- 71 %								Hb- 72 %					
Response : Good Response															
No of Weeks after Urine Sugar-PP	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th					
	++	++	+	+	Nil	-	-	-	-	-					

20. Name: Rangarajan		Age/Sex: 58/M		O.P. No: 20903		From: -14 -3-07		To- 18-4 -07		No. of days treated: 36					
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM									
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 6months	INVESTIGATIONS														
	Before treatment					Wt. 74 kg			After treatment					Wt. 72kg	
	B.P.: 130/80 mm of Hg											B.P.:130 80/ mm of Hg			
	Blood :					Urine:			Blood :					Urine:	
	Blood Sugar		TC- 9400 Cells/cumm			Alb -Nil			Blood Sugar		TC- 9400Cells/cumm			Alb - Nil	
Fasting -170 mg %		DC- P- 56 %			Sug -			Fasting - 110mg%		DC- P- 58 %			Sug -		
Post Prandial - 240mg%		L- 42 %			F - +			Post Prandial - 172 mg%		L- 38%			F - Nil		
Serum Cholesterol - 160mg%		E- 2%			PP - ++			Serum Cholesterol - 160mg%		E- 4%			PP -Nil		
Blood Urea - 20mg %		ESR- ½ hr - 4 mm			Dep- NAD			Blood Urea - 18mg%		ESR- ½ hr -5 mm			Dep-1-2 epithelial cells		
		1hr - 8mm								1hr - 12 mm					
		Hb- 74 %								Hb- 74 %					
Response : Good Response															
No of Weeks after Urine Sugar-PP	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th					
	++	++	+	+	Nil	Nil	-	-	-	-					

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

21. Name: Krishnan		Age/Sex: 52/M		O.P. No: 20915		From: - 14-3-07		To- 11-4 -07		No. of days treated: 30	
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt.66 kg					Wt. 64kg				
		B.P.: 120 /80 mm of Hg					B.P.: 110 / 80 mm of Hg				
		Blood :					Urine:		Blood :		
Blood Sugar		TC- 9400Cells/cumm		Alb -Nil		Blood Sugar		TC- 9600Cells/cumm		Alb - Nil	
Fasting -174 mg %		DC- P- 68%		Sug -		Fasting - 119 mg%		DC- P- 66 %		Sug -	
Post Prandial -250 mg%		L- 30%		F - Nil		Post Prandial - 161 mg%		L- 32%		F - Nil	
Serum Cholesterol -175 mg%		E- 2%		PP -++		Serum Cholesterol -172 mg%		E- 2 %		PP -Nil	
Blood Urea - 21mg %		ESR- ½ hr -2 mm		Dep- NAD		Blood Urea - 22mg%		ESR- ½ hr -2 mm		Dep- NAD	
		1hr - 4 mm						1hr - 5 mm			
		Hb- 74 %						Hb- 75 %			
Response : Good Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++	++	+	+	Nil	-	-	-	-	-

22. Name: Thayammal		Age/Sex: 80/F		O.P. No:20966		From: -14 3-07-		To- 18-4 -07		No. of days treated: 36	
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM					
Complaints of Tiredness Numbness in both soles Excessive excretion of Urine History of NIDDM since 1 ½ years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt.64 kg					Wt.64 kg				
		B.P.: 150 /90 mm of Hg					B.P.: 150/90 mm of Hg				
		Blood :					Urine:		Blood :		
Blood Sugar		TC- 9600 Cells/cumm		Alb -Nil		Blood Sugar		TC-9500 Cells/cumm		Alb - Nil	
Fasting -178 mg %		DC- P- 68 %		Sug -		Fasting - 108 mg%		DC- P-64 %		Sug -	
Post Prandial -238 mg%		L- 28 %		F - Nil		Post Prandial - 185 mg%		L- 32 %		F - Nil	
Serum Cholesterol -176 mg%		E- 4 %		PP -++		Serum Cholesterol -174 mg%		E- 4 %		PP -Nil	
Blood Urea - 16mg %		ESR- ½ hr -35 mm		Dep- few epithelial cells		Blood Urea - 18 mg%		ESR- ½ hr - 32 mm		Dep- NAD	
		1hr - 66 mm						1hr - 64 mm			
		Hb- 68 %						Hb- 70 %			
Response : Good Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++	++	+	+	Nil	Nil	-	-	-	-

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

23. Name: Packiyam		Age/Sex: 57 /F		O.P. No:20994		From: - 14-3-07		To- 2-5 -07		No. of days treated: 50					
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM									
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 1 year	INVESTIGATIONS														
	Before treatment					Wt. 70 kg			After treatment					Wt. 72kg	
	B.P.: 130 /80 mm of Hg						B.P.: 130/80 mm of Hg								
	Blood :				Urine:			Blood :				Urine:			
	Blood Sugar Fasting -149 mg % Post Prandial –205 mg% Serum Cholesterol –185 mg% Blood Urea – 22 mg %		TC- 9400 Cells/cumm DC- P- 56 % L- 40 % E- 4 % ESR- ½ hr – 3 mm 1hr – 6 mm Hb- 70 %		Alb –Nil Sug – F - Nil PP -++ Dep- NAD		Blood Sugar Fasting -82 mg% Post Prandial –162 mg% Serum Cholesterol –182 mg% Blood Urea – 25 mg%		TC- 9600Cells/cumm DC- P- 58% L- 36 % E- 6 % ESR- ½ hr – 4 mm 1hr – 10 mm Hb- 72 %		Alb – Nil Sug – F - Nil PP - Nil Dep- NAD				
Response : Good Response															
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th				
		++	++	++	+	+	Nil	Nil	-	-	-				

24. Name: Paapathi		Age/Sex: 45/F		O.P. No: 22596		From: 9-5-07		To-9-5 -07		No. of days treated: 50					
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM									
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years	INVESTIGATIONS														
	Before treatment					Wt.64 kg			After treatment					Wt.62 kg	
	B.P.: 110 /70 mm of Hg						B.P.: 110/ 70 mm of Hg								
	Blood :				Urine:			Blood :				Urine:			
	Blood Sugar Fasting -156 mg % Post Prandial –228 mg% Serum Cholesterol –164 mg% Blood Urea – 201 mg %		TC- 9400Cells/cumm DC- P- 56 % L- 38 % E- 6 % ESR- ½ hr – 2 mm 1hr – 5mm Hb- 64 %		Alb –Nil Sug – F - Nil PP -++ Dep- NAD		Blood Sugar Fasting - 92 mg% Post Prandial –168 mg% Serum Cholesterol –164 mg% Blood Urea – 22 mg%		TC-9400 Cells/cumm DC- P-58 % L- 40 % E- 2 % ESR- ½ hr – 4 mm 1hr – 8 mm Hb- 65 %		Alb – Nil Sug – F - Nil PP - Nil Dep- NAD				
Response : Good Response															
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th				
		++	++	+	+	+	Nil	Nil	-	-	-				

Good response– Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

25. Name: Ramaiya		Age/Sex: 64/ M		O.P. No:20948		From: -14 -3-07		To- 2-5 -07		No. of days treated: 50			
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM							
Complaints of	INVESTIGATIONS												
	Before treatment					Wt.72 kg		After treatment					Wt.72 kg
	B.P.: 150/90 mm of Hg							B.P.: 140/90 mm of Hg					
	Blood :				Urine:		Blood :				Urine:		
	Blood Sugar		TC- 9600 Cells/cumm		Alb -Nil		Blood Sugar		TC-9600 Cells/cumm		Alb - Nil		
Fasting -220 mg %		DC- P- 60 %		Sug -		Fasting - 178 mg%		DC- P- 60 %		Sug -			
Post Prandial -400 mg%		L- 34 %		F - ++		Post Prandial - 227 mg%		L- 38%		F - +			
Serum Cholesterol -202 mg%		E- 6 %		PP +++++		Serum Cholesterol -202 mg%		E- 2%		PP - ++			
Blood Urea - 19mg %		ESR- ½ hr -5 mm		Dep- NAD		Blood Urea - 20mg%		ESR- ½ hr - 5 mm		Dep- NAD			
		1hr - 12 mm						1hr - 10 mm					
		Hb- 78 %						Hb- 76 %					
Response : Poor Response													
No of Weeks after Urine Sugar-PP		1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th		
		++++	++++	+++	+++	+++	++	++	++	-	-		

26. Name: Ramachandran		Age/Sex: 60/M		O.P. No: 8406		From: -24 -1-07		To- 9-3-07		No. of days treated: 45			
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM							
Complaints of	INVESTIGATIONS												
	Before treatment					Wt.62 kg		After treatment					Wt. 65kg
	B.P.: 140/80 mm of Hg							B.P.: 140/80 mm of Hg					
	Blood :				Urine:		Blood :				Urine:		
	Blood Sugar		TC- 9000 Cells/cumm		Alb -Nil		Blood Sugar		TC- 9000Cells/cumm		Alb - Nil		
Fasting-140 mg %		DC- P- 55 %		Sug -		Fasting - 125mg%		DC- P- 54%		Sug -			
Post Prandial -260 mg%		L- 43 %		F - +		Post Prandial - 182 mg%		L- 42 %		F - Nil			
Serum Cholesterol - 164mg%		E- 2 %		PP - +++		Serum Cholesterol -158 mg%		E- 4 %		PP - trace			
Blood Urea - 40mg %		ESR- ½ hr - 5 mm		Dep- NAD		Blood Urea - 38 mg%		ESR- ½ hr -5 mm		Dep- NAD			
		1hr - 12 mm						1hr - 10 mm					
		Hb- 74 %						Hb- 76 %					
Response : Fair Response													
No of Weeks after Urine Sugar-PP		1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th		
		+++	+++	+++	++	++	+	-	-	-	-		

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

27. Name: Jeyasingh		Age/Sex: 47/M		O.P. No:15748		From: 21-2 -07		To- 11-4 -07		No. of days treated: 50	
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Giddiness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 72 kg					Wt. 70kg				
		B.P.: 140 /90 mm of Hg					B.P.: 130 /90 mm of Hg				
		Blood :					Urine:			Blood :	
Blood Sugar		TC- 8200 Cells/cumm		Alb -Nil		Blood Sugar		TC- 8600 Cells/cumm		Alb - Nil	
Fasting -192 mg %		DC- P- 62 %		Sug -		Fasting - 130 mg%		DC- P- 60 %		Sug -	
Post Prandial - 269 mg%		L- 34%		F - +		Post Prandial - 194 mg%		L- 36 %		F -Nil	
Serum Cholesterol -192 mg%		E- 4 %		PP -+++		Serum Cholesterol - 180mg%		E- 4 %		PP - +	
Blood Urea - 25 mg %		ESR- ½ hr - 4 mm		Dep- 1-2 puscell		Blood Urea - 25mg%		ESR- ½ hr -4 mm		Dep- NAD	
		1hr - 8 mm						1hr - 10 mm			
		Hb- 74 %						Hb- 75 %			
Response : Fair Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		+++	+++	++	++	+	+	+	-	-	-

28. Name: Essaki		Age/Sex: 46/M		O.P. No:13876		From: - 14-2-07		To- 28-3 -07		No. of days treated: 43	
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Giddiness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt.72 kg					Wt.72 kg				
		B.P.: 140 /80 mm of Hg					B.P.: 140 /80 mm of Hg				
		Blood :					Urine:			Blood :	
Blood Sugar		TC- 8600 Cells/cumm		Alb -Nil		Blood Sugar		TC- 9200 Cells/cumm		Alb - Nil	
Fasting - 178 mg %		DC- P- 56 %		Sug -		Fasting - 147 mg%		DC- P- 56%		Sug -	
Post Prandial - 280mg%		L- 38 %		F - Nil		Post Prandial - 230 mg%		L- 40%		F - Trace	
Serum Cholesterol - 160 mg%		E- 6 %		PP -+++		Serum Cholesterol - mg%		E- 4 %		PP - ++	
Blood Urea - 26 mg %		ESR- ½ hr - 42 mm		Dep- NAD		Blood Urea - mg%		ESR- ½ hr - 40 mm		Dep- NAD	
		1hr - 80 mm						1hr - 75 mm			
		Hb- 75 %						Hb- 76 %			
Response : Fair Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		+++	+++	+++	++	++	++	++	++	-	-

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

29. Name: Mathaar		Age/Sex: 67 /M		O.P. No: 14059		From: 15-2 07-		To- 5-4 -07		No. of days treated: 50	
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Giddiness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 68 kg					Wt.68 kg				
		B.P.: 140 /80 mm of Hg					B.P.: 140 /80 mm of Hg				
		Blood :					Urine:		Blood :		
Blood Sugar		TC-9600 Cells/cumm		Alb -Nil		Blood Sugar		TC-9600 Cells/cumm		Alb - Nil	
Fasting -199 mg %		DC- P-64 %		Sug -		Fasting -146 mg%		DC- P-60 %		Sug -	
Post Prandial -258 mg%		L- 34%		F - trace		Post Prandial -192 mg%		L- 36%		F - Nil	
Serum Cholesterol - mg%		E- 2 %		PP - +++		Serum Cholesterol -289 mg%		E- 4 %		PP - +	
Blood Urea - mg %		ESR- ½ hr - 25 mm		Dep- NAD		Blood Urea - 20 mg%		ESR- ½ hr - 12 mm		Dep- NAD	
		1hr - 50 mm						1hr - 25 mm			
		Hb- 81 %						Hb- 80 %			
		Response : Fair Response									
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		+++	+++	+++	++	++	+	+	-	-	-

30. Name: Natarajan		Age/Sex: 48 /M		O.P. No:10085		From: -31-1-07		To- 21-3-07		No. of days treated: 50	
Drug : TANNEERVITTAAN KIZHANGU CHOORNAM 1G TDS WITH HOT WATER						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 72 kg					Wt72. kg				
		B.P.: 130 /80 mm of Hg					B.P.: 130 /80 mm of Hg				
		Blood :					Urine:		Blood :		
Blood Sugar		TC- 9500 Cells/cumm		Alb -Nil		Blood Sugar		TC- 9400 Cells/cumm		Alb - Nil	
Fasting -140 mg %		DC- P- 65 %		Sug -		Fasting - 102 mg%		DC- P- 66 %		Sug -	
Post Prandial - 238mg%		L- 32 %		F - Nil		Post Prandial - 202 mg%		L- 30 %		F - Nil	
Serum Cholesterol -160 mg%		E- 3 %		PP -+++		Serum Cholesterol - mg%		E- 4 %		PP - ++	
Blood Urea - 24 mg %		ESR- ½ hr - 2 mm		Dep- NAD		Blood Urea - mg%		ESR- ½ hr - 3 mm		Dep- NAD	
		1hr - 5 mm						1hr - 6 mm			
		Hb- 75 %						Hb- 76 %			
		Response : Fair Response									
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		+++	+++	+++	++	++	++	++	-	-	-

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

31.Name: Emema	Age/Sex: 50/F	I.P. No: 495	DOA:19-2-08	DOD-23-03-08	No. of days treated 33
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Drug : THANNEERVITTAN KIZHANGU CHOORANAM 1G TDS WITH HOT WATER	Diagnosis: MADHUMEGAM
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Complaints of	INVESTIGATIONS						Response
	Before treatment			After treatment			
	Wt. 72kg			Wt. 72kg			
Body pain	B.P.: 120/80mm of Hg			B.P.: 120/80mm of Hg			Good Response
Numbness in both soles	Blood :		Urine:	Blood :		Urine:	
Excessive Excretion of Urine	Blood Sugar	TC- 10000Cells/cumm	Alb – Nil	Blood Sugar	TC-9000 Cells/cumm	Alb –Nil	Good Response
Tiredness	Fasting - 140 mg%	DC- P- 68%	Sug –	Fasting - 65 mg%	DC- P- 58 %	Sug –	
Loss of weight	Post Prandial -190mg %	L- 30%	F - Nil	Post Prandial - 112mg %	L - 38 %	F - Nil	
History of NIDDM since 1 year	Serum Cholesterol -175mg %	E - 2%	PP - ++	Serum Cholesterol -172mg%	E - 4 %	PP – Nil	
	Blood Urea - 28 mg%	ESR- ½ hr –8 mm	Dep- NAD	Blood Urea- 31 mg%	ESR- ½ hr – 4 mm	Dep- NAD	
		1hr – 15 mm			1hr – 8 mm		
		Hb- 74 %			Hb- 76 %		

Progress	On admission	5 th day	10 th day	15 th day	20 th day	25 th day	30 th day	35 th day	40 th day
Body Pain	+	+	-	-	-	-	-	-	-
Numbness in the soles	++	++	+	+	+	-	-	-	-
Giddiness	-	-	-	-	-	-	-	-	-
Fluid intake/day	2500ml	2400ml	2100ml	2000ml	2200ml	2000ml	2100ml	2100ml	-
Urine output/day	3700ml	3500ml	3500ml	3400ml	3200ml	2800ml	2700ml	2800ml	-
Urine Sugar /P.P	++	++	++	+	+	-	-	-	-

+ - Mild ++ - Moderate +++ severe

Good response – Reduction of Fasting and Post Prandial Blood Sugar and Glycosuria

Fair response - Significant reduction but not to normal level of Fasting and Post Prandial Blood Sugar and Glycosuria

Poor response - insignificant reduction but not to normal level of fasting and Post prandial Blood Sugar and Glycosuria.

32.Name: Thiyagarajan	Age/Sex: 54/M	I.P. No:	DOA:11-3-08	DOD-31-03-08	No. of days treated 16
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Drug : THANNEERVITTAN KIZHANGU CHOORANAM 1G TDS WITH HOT WATER	Diagnosis: MADHUMEGAM
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Complaints of	INVESTIGATIONS						Response
	Before treatment			After treatment			
	Wt. 65kg			Wt. 65kg			
Body pain	B.P.: 120/80mm of Hg			B.P.: 120/80mm of Hg			Good Response
Numbness in both soles	Blood :		Urine:	Blood :		Urine:	
Excessive Excretion of Urine	Blood Sugar	TC- 8600Cells/cumm	Alb – Nil	Blood Sugar	TC-8800 Cells/cumm	Alb –Nil	Good Response
Tiredness	Fasting - 160 mg%	DC- P- 58%	Sug –	Fasting - 92 mg%	DC- P- 60 %	Sug –	
Loss of weight	Post Prandial -222mg %	L- 36%	F - Nil	Post Prandial - 150mg %	L - 38 %	F - Nil	
History of NIDDM since 6 months	Serum Cholesterol -180mg %	E - 6%	PP - ++	Serum Cholesterol -182mg%	E - 2 %	PP – Nil	
	Blood Urea - 22 mg%	ESR- ½ hr –4 mm	Dep- NAD	Blood Urea- 22 mg%	ESR- ½ hr – 5 mm	Dep- NAD	
		1hr – 8 mm			1hr – 10 mm		
		Hb- 65 %			Hb- 66 %		

Progress	On admission	5 th day	10 th day	15 th day	20 th day	25 th day	30 th day	35 th day	40 th day
Body Pain	+	+	-	-	-	-	-	-	-
Numbness in the soles	++	++	+	+	-	-	-	-	-
Giddiness	-	-	-	-	-	-	-	-	-
Fluid intake/day	2600ml	2600ml	2500ml	2300ml	2200ml	-	-	-	-
Urine output/day	3700ml	3500ml	3500ml	3400ml	3200ml	-	-	-	-
Urine Sugar /P.P	++	++	++	+	-	-	-	-	-

+- Mild ++ - Moderate +++ severe

Good response – Reduction of Fasting and Post Prandial Blood Sugar and Glycosuria

Fair response - Significant reduction but not to normal level of Fasting and Post Prandial Blood Sugar and Glycosuria

Poor response - insignificant reduction but not to normal level of fasting and Post prandial Blood Sugar and Glycosuria.

33.Name: Pooma		Age/Sex: 70/ F		I.P. No: 494		DOA:19-2-08		DOD-28-3-08		No. of days treated 38													
Drug : THANNEERVITTAN KIZHANGU CHOORANAM 1G TDS WITH HOT WATER								Diagnosis: MADHUMEGAM															
Complaints of Body pain Numbness in both soles Excessive Excretion of Urine Tiredness Loss of weight History of NIDDM since 3 years		INVESTIGATIONS																					
		Before treatment					Wt. 50 kg					After treatment					Wt.52 kg					Response	
		B.P.: 120/ 70 mm of Hg										B.P.: 120 /80 mm of Hg											
		Blood :					Urine:					Blood :					Urine:						
		Blood Sugar		TC- 8800Cells/cumm			Alb – Nil			Blood Sugar		TC- 9400Cells/cumm			Alb –Nil		Good Response						
Fasting - 120 mg%		DC- P- 55%			Sug –			Fasting - 70 mg%		DC- P- 67 %			Sug –										
Post Prandial -223mg %		L- 40%			F - Nil			Post Prandial -146 mg %		L - 31 %			F - Nil										
Serum Cholesterol 190-mg %		E - 5%			PP - ++			Serum Cholesterol -201mg%		E - 2 %			PP – Nil										
Blood Urea - 27mg%		ESR- ½ hr –10 mm			Dep- NAD			Blood Urea- 33mg%		ESR- ½ hr – 9 mm			Dep- NAD										
		1hr – 15mm								1hr – 15 mm													
		Hb- 61%								Hb- 64 %													
Progress	On admission	5th day	10th day	15th day	20th day	25th day	30th day	35th day	40th day														
Body Pain	+	+	+	-	-	-	-	-	-														
Numbness in the soles	++	++	+	+	+	-	-	-	-														
Giddiness	-	-	-	-	-	-	-	-	-														
Fluid intake/day	3000ml	2800ml	2500ml	2600ml	2500ml	2200ml	2300ml	2100ml	2100ml														
Urine output/day	3700ml	3700ml	3600ml	3500ml	3400ml	3300ml	3100ml	3200ml	3100ml														
Urine Sugar /P.P	++	++	++	+	+	+	-	-	-														

+- Mild ++ - Moderate +++ severe

Good response – Reduction of Fasting and Post Prandial Blood Sugar and Glycosuria

Fair response - Significant reduction but not to normal level of Fasting and Post Prandial Blood Sugar and Glycosuria

Poor response - insignificant reduction but not to normal level of fasting and Post prandial Blood Sugar and Glycosuria.

34. Name: Packiyam	Age/Sex: 62/F	I.P. No:701	DOA:14-3-08	DOD-11-4-08	No. of days treated 29
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Drug : THANNEERVITTAN KIZHANGU CHOORANAM 1G TDS WITH HOT WATER	Diagnosis: MADHUMEGAM
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Complaints of	INVESTIGATIONS						Response
	Before treatment			After treatment			
	Wt. 52 kg			Wt.52 kg			
Body pain	B.P.: 110 /70 mm of Hg			B.P.: 110 /70 mm of Hg			Good Response
Numbness in both soles	Blood :		Urine:	Blood :		Urine:	
Excessive Excretion of Urine	Blood Sugar	TC- 9800Cells/cumm	Alb – Nil	Blood Sugar	TC- 9600Cells/cumm	Alb –Nil	Good Response
Tiredness	Fasting - 176 mg%	DC- P- 68%	Sug –	Fasting - 110 mg%	DC- P- 59 %	Sug –	
Loss of weight	Post Prandial -260mg %	L- 30%	F - Nil	Post Prandial -160 mg %	L - 38%	F - Nil	
History of NIDDM since 1 year	Serum Cholesterol -180mg %	E - 2%	PP - ++	Serum Cholesterol -180mg%	E - 3%	PP – Nil	
	Blood Urea - 18 mg%	ESR- ½ hr – 10 mm	Dep- few epithelial cells	Blood Urea- - mg%	ESR- ½ hr –10 mm	Dep- NAD	
		1hr – 22 mm			1hr – 20mm		
		Hb- 78 %			Hb- 76%		

Progress	On admission	5 th day	10 th day	15 th day	20 th day	25 th day	30 th day	35 th day	40 th day
Body Pain	+	+	+	+	-	-	-	-	-
Numbness in the soles	+	+	-	-	-	-	-	-	-
Giddiness	-	-	-	-	-	-	-	-	-
Fluid intake/day	3000ml	2800ml	2600ml	2500ml	2400ml	2100ml	2000ml	-	-
Urine output/day	3700ml	3500ml	3200ml	3100ml	3400ml	3200ml	3100ml	-	-
Urine Sugar /P.P	++	++	++	+	+	-	-	-	-

+- Mild ++ - Moderate +++ severe

Good response – Reduction of Fasting and Post Prandial Blood Sugar and Glycosuria

Fair response - Significant reduction but not to normal level of Fasting and Post Prandial Blood Sugar and Glycosuria

Poor response - insignificant reduction but not to normal level of fasting and Post prandial Blood Sugar and Glycosuria.

35. Name: Saraswathy	Age/Sex: 50/f	I.P. No:1225	DOA:1-5-07	DOD-16-5-07	No. of days treated 17
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Drug : THANNEERVITTAN KIZHANGU CHOORANAM 1G TDS WITH HOT WATER	Diagnosis: MADHUMEGAM
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Complaints of	INVESTIGATIONS						Response
	Before treatment			After treatment			
	Wt.62 kg			Wt.64 kg			
Body pain	B.P.:140 /90 mm of Hg			B.P.:140 /90 mm of Hg			FairResponse
Numbness in both soles	Blood :		Urine:	Blood :		Urine:	
Excessive Excretion of Urine	Blood Sugar	TC- 9000Cells/cumm	Alb – Nil	Blood Sugar	TC- 8200Cells/cumm	Alb –Nil	FairResponse
Tiredness	Fasting - 180 mg%	DC- P- 55%	Sug –	Fasting -120 mg%	DC- P- 58 %	Sug –	
Giddiness	Post Prandial -262mg %	L- 40%	F - +	Post Prandial - 190mg %	L - 38 %	F - Nil	
History of NIDDM since 3 years	Serum Cholesterol 168-mg %	E - 5%	PP -+++	Serum Cholesterol -166mg%	E - 4%	PP – trace	
	Blood Urea - 22mg%	ESR- ½ hr –6 mm	Dep- NAD	Blood Urea- 22 mg%	ESR- ½ hr – 15 mm	Dep- NAD	
		1hr – 12 mm			1hr – 30mm		
		Hb- 69%			Hb- 71 %		

Progress	On admission	5 th day	10 th day	15 th day	20 th day	25 th day	30 th day	35 th day	40 th day
Body Pain	+	-	-	-	-	-	-	-	-
Numbness in the soles	++	+	+	-	-	-	-	-	-
Giddiness	+	+	+	+	+	-	-	-	-
Fluid intake/day	3200ml	2800ML	2600ml	2200ml	2400ml	-	-	-	-
Urine output/day	3800ml	3400ml	3100ml	3400ml	3500ml	-	-	-	-
Urine Sugar /P.P	+++	++	+	+	+	-	-	-	-

+- Mild ++ - Moderate +++ severe

Good response – Reduction of Fasting and Post Prandial Blood Sugar and Glycosuria

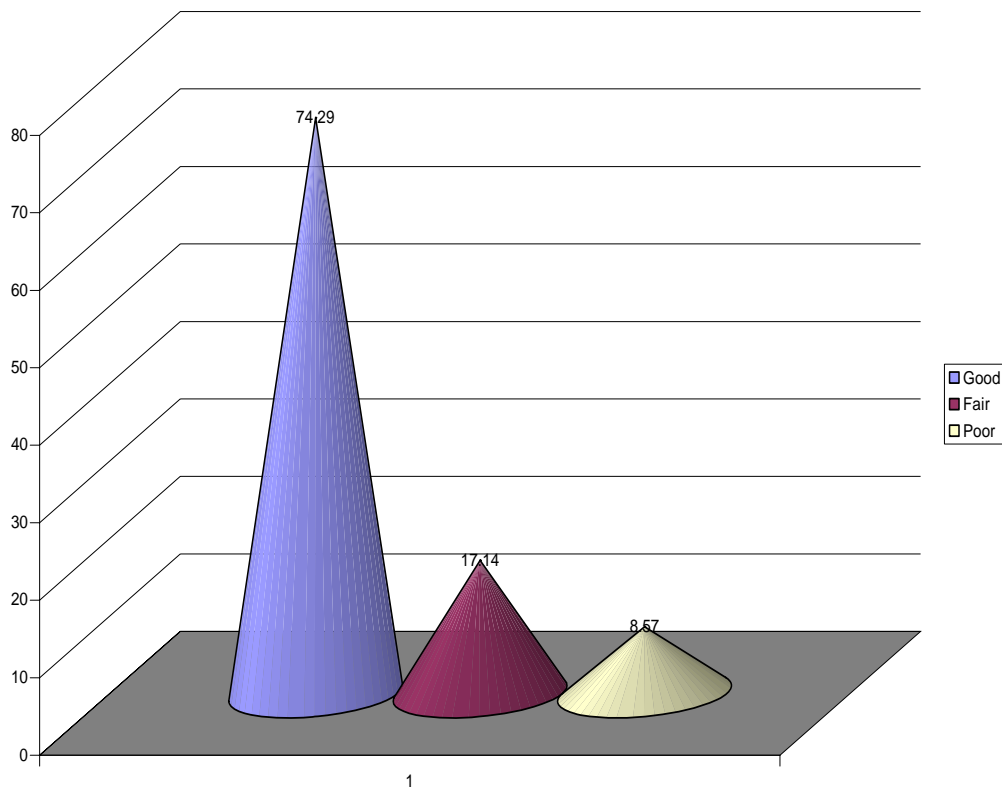
Fair response - Significant reduction but not to normal level of Fasting and Post Prandial Blood Sugar and Glycosuria

Poor response - insignificant reduction but not to normal level of fasting and Post prandial Blood Sugar and Glycosuria.

Tabulation showing grade and percentage

S. No	Grade	No of Patients	Percentage
1.	Good	26	74.29%
2.	Fair	6	17.14%
3.	Poor	3	8.57%
	Total	35	100%

Graph showing grade and Percentage



In the clinical trail done for 35 patients good result is obtained for 74.29% obtained fair results is 17.14%, poor results is 8.57% of cases.

Statistical Analysis

STATISTICAL ANALYSIS

The study findings and results were analysed based on percentage, mean and SD. The above statistic were interpreted by students 't' test and 'z' test. The package used for analysis and interpretation is SPSS version 13.0.

Results and Discussion

Age and Sex

The study subjects of Madhumegam were classified and analysed with reference to their ages, since ages is one of the crucial factor of the incidents of the disease. The result are furnished with below table.

Age and sex wise classification of Thanneervittan kizhangu study subjects.

Sl. No	Sex	n	age		't'	Significance	95'1± C.mean age of the population
			Mean	S.D			
1.	Male	12	53.33	10.14	0.618	P>0.05	
2.	Female	23	55.47	9.54			
	Total	35	54.74	9.65	-	-	51.42 to 58.1 years

The above table clearly shows that the incidents of the disease is equal in response to age with irrespective sex. That means there is no

significant difference is observed in the mean ages of both sex. The mean age of the sample of both is 54.74 ± 9.65 and the same mean for the Madhumegam population will be 51.42 to 58.1 years.

Blood Sugar

The level of glucose in the blood is an indicator of the prevalence of the disease. The blood sugar was measured and recorded to the study subjects during fasting and post prandial. The effectiveness of the controlling and managing is analysed by the above mentioned parameters. Before treatment and after treatment parameters are posted in the below table with analytical results.

Fasting and PP blood glucose level of Madhumegam subjects before and after administration of Thanneervittan kizhangu(gm%)

Sl. No	Blood Glucose Level	n	Before		After		Mean difference	't'	Significance
			Mean	S.D	Mean	S.D			
1.	Fasting	35	162.0	27.73	107.4	33.36	54.6	14.258	P<0.000
2.	PP	35	251.1	45.5	178.4	36.1	72.7	15.444	P<0.000

From the above table the results of the before treatment and after treatment, the reduction of blood sugar is 54.6mg% and 72.7mg %. The reduction is statistically significant. The management and control of the sugar is due to the administration of Thanneervittan kizhangu

chooranam. The drug is effectively controlling the blood glucose level in the stages of Fasting and PP. The above statement is uniformed through highly statistically significant results of the before and after treatment.

Discussion

Discussion

According to Siddha maruthuvam the basic abnormality in Madhumegam is the derangement of Kaba humour.

தன்வினைபிறவினைகளின் அளவாக ஐயம் தன்னிலையில் கேடடைந்து கீழ்நோக்குக்கால் அத்துடன் கெட்டு ஏழு உடற்கட்டுகளையும் ஒன்றன்பின் ஒன்றாக கேடையச் செய்து பசித்தீயைக் கெடுக்கும். ஐயம் வாழும் இடமான சமனவாயு பாதிக்கப்படுவதால் உணவின் சாரத்தை உடலுக்கு சேர்ப்பிக்க வேண்டிய இடத்தில் சேர்ப்பிக்காமல்/ மேலும் மற்ற குற்றங்களை தன்னிலைப்படுத்தும் தன்மையை இழக்கிறது.

இதனால் வாதம் / பித்தம் / இரு குற்றங்களும் தன்னிலை பிறழ்கின்றன. ஊட்டம் தரும் அறுசுவைகளையும் / தண்ணீர் / அன்னம் ஆகியவற்றையும் சமப்படுத்தி உடலில் சேரவிடாமல் செய்கிறது. உடல் மற்றும் உயிருக்குத் தேவையான ஆதார சக்தியை சிறுநீர் மூலம் வெளியேற்றும். இதனால் ஏழு உடற்கட்டுகளும் பாதிக்கப்படுகின்றன.

Thus affecting Iya humour, then followed by pitha and vatha reflects the clinical signs and symptoms like polyphagia, polyuria, polydypsia, body pain, malaise, fatigue and glycosuria etc.

The above signs and symptoms are relieved clinically by the administration of the drug Thanneervittan kizhangu chooranam. The explanation is given below and the drug acts in such a way that.

According to “Wealth of India” the drug “Thanneervittan kizhangu” possesses sweet and bitter taste. It is made up of vayu + Agayam in panchaboothams. Action of bitter taste brings Iya humour in normal state. It regularizes samana vayus and all three humours and it controls glycosuria.

“வேறு காரணம் விளைத்த வுண் வெறுப்
போட்டு மியல்பா யேற்க விரும்பா
வாய் நீருறல் அழற்சியுந் தணிக்கும்
மெய்நீர்க் கசிவையுந் தடியைந் தடியும்
ஊண்சலம் மலஞ்சலம் நிணசலம் என்பினுள்
மன்னிய மூளைச் சுரப்பிகள் யாவையும்
வறட்டும் முலைப்பால் மாசறும் அறிவை
.....கைப்பை
அளவோடு கொண்டால் அடையும் பயனே”

-சித்த மருத்துவாங்கச் சுருக்கம் பக்கம் 23

The poem reveals the effect of bitter which control urine, faeces going outside excessively.

உயிருக்கு ஆதாரமான சக்தியை சிறுநீர் வழியே வெளியேற்றுவதை தடுக்கும்.

The drug also contain inippu suvai, its actions are illustrated as

”சனித்தது தொட்டுயிர்க்குச் சாமியமான
இனிப்புர மேழ் தாதுக் கீயும் சகப்பால்

உகவியற்றும் வண்ணமொளி மெய்க்காற்றும் கேசம்
அகவை புலன்பொறி யாயுள்
.....சுண்டியமெய் கண்டோர்
வியக்கப் பெருக்கும்

-சித்த மருத்துவரங்க சுருக்கம் 19.

இச்செய்யுளால் இனிப்பு சுவையை அளவோடு உண்ண ஏழு உடற்கட்டுக்களுக்கும் மிக்க பலம் தரும். வற்றிய உடல் ஆச்சரியப்படும் படியாக பருக்கும். உள்ளூறுப்புகளுக்கு வழுவழுப்பும் இயக்கமும் உண்டாகும். இதை போல “மதுமேக” நோய் 7 உடற்கட்டுகளும் கேடடைந்து எழும் நோயாகும். எனவே இனிப்பு சுவையை அளவோடு கொடுக்க உடற்கட்டுகளுக்கு வன்ம உண்டாகும். மேலும் இதனுடன் கைப்பு சுவையும் இருப்பதனால் மதுமேக நோயை போக்கும்.

It brings the vitiated kapha thosam to normal, hence the drug is administered to the patients.

The above Gunapadam explanation of the drug reveals the significant hypoglycaemic action which was supported by experimental results conducted in pharmacological and bio chemical analysis.

- Biochemical analysis shows the drug Thanneervittan kizhangu Chooranam has unsaturated compound, reducing sugar and ferrous iron and their biological actions are given below.

- The presence of ferrous iron improved the Haemoglobin level in most of the patients.
- Antimicrobial studies of Thanneervittan kizhangu chooranam showed that the drug is sensitive for staphylococcus only.
- According to siddha literature Thanneervittan kizhangu is best for aphrodisiac actions.
- In most of the cases insomnia, peripheral neuritis, itching in the genital areas,. Body pain, malaise are observed. This is due to the chronicity of the disease and dietary change. This fact was observed by the author during the clinical trials, but after the treatment the above symptoms are reduced in most of the patients.
- In clinical studies patients who were diagnosed as per the inclusion criteria given the drug in a dose of 1gm thrice a day for 30-50 days depending upon the signs and symptoms as by laboratory investigation,

Summary

Summary

- The drug Thanneervittan kizhangu chooranam was selected for this dissertation taken from the text **Gunapadam Mooligai Vaguppu** (page 499) written by Dr.Murugesu Muthaliar
- The roots of Thanneervittan was collected from the private raw drug store at Nagercoil. It was cleaned, dried in shadow, finely powdered, purified and preserved.
- A review of literature about the drug and their significance in siddha medicine were done.
- Information about the drug was collected from various sources like abstracts, journals and internet files.
- Thanneervittan kizhangu roots are kaippu and inippu suvai and controls the kabha kutram which predispose the madhumeagam as per siddha literature.
- Bio chemical analysis of the drug reveals the presence of unsaturated compound, ferrous iron and their biological significance are being discussed.
- The Pharmacological analysis shows the drug posses significant hypoglycaemic effect.

- In the clinical trials out of 35 patients 74.29 patients showed good response and of 17.14% patients showed fair response and 8.57% patients showed poor response.
- No adverse reaction were noted during the treatment.

Conclusion

Conclusion

It is concluded that the trial drug Thanneervittan kizhangu chooranam is found to be an effective drug for Madhamegam without producing any adverse effects.

Anjanackal Parpam

Intruduction

Introduction

The basic dictum in the science of life profounded by the great siddhar Thirumoolar, three thousand years ago is as follows:

"Medicine means one that ensures physiotherapy

Medicine means one that ensures psychotherapy

Medicine means one that ensures prevention of disease

Medicine means one that ensures prevention against mortality"

Thirumoolar 800

Medicine meant for the human body are prepared based on the theory of Panchabuthams (metals of gold, lead, copper, iron and zinc) Gold and lead are used for the maintenance of the body. Iron the only metal attracted by the magnet and zinc are employed in the medicines which are administered for the extension of life. And copper is used for preservation of heat in the body. All the metals are used only after proper detoxification.

The functioning of human body is goverened by 96 faculties or thathuvams. The human body is conditioned by thridosas consisting of vatha, pittha and kabha(Wind, bile and phlegm). They rule over the human body like three monarchs.

When there is any imbalance in any of these three humours due to food, habit and other environmental factors, the individual is indisposed.

In Siddha system drugs are classified in to three main groups namely

Mooligai (Vegetable Kingdom)

Thathu (Metals & Minerals)

Jeevam (Animal Kingdom)

In Thathuvaguppu, they are classified as

Ulogam - 11(Metals)

Paadanam - 64(Arsecnicals)

Karasaaram - 25(Salts)

Uparasam -- 120(Mixed Origin)

In this classification the anchanackal comes under the classification of paadanam

No one has taken the drug to test its efficacy in treating Madhumegam (Diabetes mellitus). So the author has selected Anjanakal Parpam for treating madhumegam.

Aim and Objective

Aim and Objective

Aim and objective of this dissertation study is to do a scientific review of the hypoglycaemic activity of **Anchanackal parpam** based on the reference of “ **Mega roga Nirvana Pothini ennum Neerilivu roga sikitchai Page No : 226**”

The potency of the herbal medicines like chooranam, kudineer etc is short lived. These short comings are cleared by the medicines prepared as parpams and chendurams which have a longer life time.

Therefore for the treatment of Madhumegam the medicines prepared by minerals are essential in addition to herbal medicine.

In the mineral category Anchanackal is claffified as Paadanam.

So the author selected Anjanackal parpam to study the following aspects

1. Chemical aspect
2. Gunapadam aspect
3. Biochemical analysis
4. Pharmacological analysis
5. Antimicrobial analysis
6. Quantitative analysis by AAS method
7. Toxicity studies
8. Clinical assessment

Review of Literature

Chemical Aspects

REVIEW OF LITERATURE

Chemical Aspects

PLUMBIC SUPHIDE

Synonyms : Blue Lead

Lead glance

Chemical formula : Pbs

Molecular weight : 239.27gm

Lead : 86.60%

Sulfur : 13.40%

Empirical formula : Pbs

It is the most important lead ore. It occurs as grey cubic crystals or in massive or granular form. It is usually found in intimate association with sphalerite(Zns) and often contains silver. If the content of silver exceeds 1% the mineral is called Argentiferous galena. Other metals which may be present in lead deposits are copper, gold and vanadium.

Galena occurs in lodes and veins usually formed by complete or partial replacement of a pre-existing rock by ore bearing solutions. It sometimes occur also as disseminations in country rock. The gangue

minerals in the galena veins are quartz, Calcite dolomite, siderite, fluorite or barbite.

Occurrence and Distribution

Lead deposits of galena occurs in the United States of America, Australia, Mexico, Canada, and a few other countries.

In India it occurs in various parts of Andrapradesh, Bihar, Orissa, **Punjab, Himachalpradesh.**

In Bihar it occurs in Hararibagh, Bagalpur, Ranchi and Singhbhum districts.

In **Orissa** it is found an chots Udaipur

Himachal Pradesh

Galena occurs in Sirumur district at Aiyar, Amba and Kando Madhya Pradesh, Orissa.

-Wealth of India volume VI Page : 51

Physical properties

Lusture : Metallic, Dull

Diaphaneity : Opaque

Colour : Lead grey

Streak : Lead-grey

Hardness : 2.5

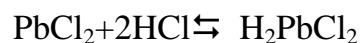
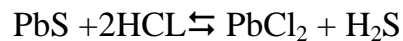
Tenacity	:	Brittle
Specific gravity	:	7.4 – 7.6
Cleavage	:	Perfect
Fracture	:	Sub-conchoidal
Density	:	7.58 g/cm ³

Chemical Properties:

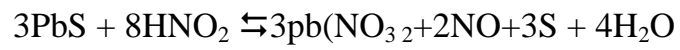
Formula	:	Pbs
Essential elements	:	Pb,s
Common Impurities	:	Ag, Cu, Fe, Bi

-Economic geology Page: 352

Lead Sulphide, PbS. It is found in native as galena. It is obtained as a black precipitate by passing hydrogen sulphide through a solution of a lead salt. It can also be prepared by passing sulphur vapour over heated lead when the latter catches fire forming crystalline lead sulphide. It is insoluble in yellow ammonium sulphide. It however dissolves in hot concentrated hydrochloric acid due to the formation of the plumbochloride ion $[\text{PbCl}_4]^{2-}$



It also dissolves in nitric acid forming lead nitrate. With dilute nitric acid some lead sulphate is also formed .



Anjanackal Raw Drug



Purified Anjanackal



Gunapadam Aspects

Gunapadam Aspects

Veracular names

Tamil	:	Anchanackal
Sanskrit	:	Anjana Saurivanjana Krishna surmol
English	:	Galena- Sulphide of Lead
Pers	:	Anjana
Arab	:	Surma
Hindi	:	Surma
Bengali	:	Surma

It is obtained from the mountain of Sauviria a country along the Indus when it derives its name. The sulphide of Lead glimmering luster, and is an ore of lead occurs in cubic masses destitute of rays and is tabular in its crystalline arrangement.

Sartonjana or suffed surma (White Surma) is produced in the bed of Jamuna and other rivers.

Black surma or Surranjana of Galena is used as a Cosmetic for the eye and is supposed to strengthen organs, improve their appearance and preserve them from disease.

It enters in to composition of some collyria for eye disease.

Galena heated over a fire and cooled in decoction in the three myrobalans for several times in succession is rubbed with human milk and used in various eye diseases.

Another preparation recommended by the same is made up of purified and melted lead and mercury one part each, galena two parts rubbed well and reduced to powder, to which is added and mixed, intimately camphor 1/10th in weight of the mass. This preparation is useful in eye disease. Sticks made of surma, camphor, Triphala mixed together in juice of Eclipta prostrata Eugenia Jambolana and citrus lemon dried and made in to sticks or probes, are used as an application inside the lids in ophthalmia.

-Wealth of India volume II

நீலாஞ்சனக்கல் :-

நீலாஞ்சனக்கல் ஒரு தாதுப் பொருள் தாதுப் பொருள் 4
பிரிவுகளை கொண்டது அவை

உலோகம் - 11

காரசாரம் - 25

பாடாணம் - 64

உபரசம் - 120

ஆக மொத்தம் தாதுப் பொருள் 220. இப்பிரிவில் அஞ்சனக்கல் பாடாணம் என்னும் பிரிவில் வருகிறது.

பாடாணம் 64 இயற்கை பாடாணம். செயற்கை பாடாணம் என இரு வகைப்படும். இயற்கைபாடாணம் - 32. செயற்கைப் பாடாணம் - 32 அஞ்சனக்கல் இயற்கை பாடாணத்துள் ஒன்று

”பரியான கற்பாடாணந்தன் னோடு

பாங்கான அஞ்சனபாடாணமாகும் “

- போகர் ஏழாயிரம்

வேW பெயர்கள் :-

நீலாஞ்சனம்

சுருமாக்கல்

கருநிமிளை

-குணபாடம் தாது சீவ வகுப்பு பக்கம் 221

”அஞ்சனத்தின் பேர்தனையெ கருதக் கேளு

அழகான கண்ணுக்குள் சீன முமாகும்

நெஞ்சினத்தில் சீலை சூதமாகும்

நேர் கல்வி நியமாம் லோக சொர்ணம்

குஞ்சனத்தின் சீலாஞ்சீனமாஞ் சூதாஞ்சனமாங்

கெடிய வெற்பின் அஞ்சின மாங்கு வட்ட நீயம்

பஞ்சனத்தின் செவ் வீரஞ்சனமாகும்

பாங்கான கிருஷ்ண வஞ்சனமு மாமே”

இதனை கண்ணுக்குள் அஞ்சனம்/ சீலை, சூதம்/ கல்லினீயம்/

லோகாஞ்சனம்/ சிலாஞ்சனம்/ சூத அஞ்சனம்/ கிருஷ்ண வர்ண

அஞ்சனம் எனவும்

-போகர் நிகண்டு 1700 பக்கம் 25

”அஞ்சனப் பாஷணப் பேரைக் கருதக் கேளு

யாறமாஞ் சீலைக்காறி அயத்துக் கெந்தகனாம்

திஞ்சன மாந்தாரமாந் தூளியாகும்

சொற்சிலையின் வங்கந்தான் சொற்பேதி

குஞ்சனமாங் கூறமாங் கொல்லன் பாகைசாரி

கொடிய தொரு உருக்கினமாம் பாரமா குஞ்சம்

வஞ்சனமா மயினமாம் நீலமாகும்

வகுத்துரைத்த அஞ்சனப் பாஷாணமாமே”

சீலைக்காரி/ மாந்தூளி/ பொற்சிலை/ வங்கபேதி/ குஞ்சனம்/ கூரம்/

கொல்லன் பகை/ உருக்கினம் என்பன இதன் வேறுபெயர்கள்

-போகர் நிகண்டு 1200 பக்கம் 61

”கல்லான வாளை நிமிளை வன்னி மிளை யென்றும்

கருநிமிளை திருநிமிளை யென்றும் பேரு

அல்லான வத்திரா நிமிளை யென்றும் பெரு

அருளினோம் வயநிமிளை பசுநிமிளை யென்றும்

வல்லான விசநிமிளை வேங்கையாகிமேவும்

படிவப் பாங்க மென்றும் பேரு

சொல்லான சோதி நிமிளையென்றும் பேரு

சொல்லிவிட்டோம் அஞ்சனக் கல்லிடலின் பேரே”

உரை வாளைநிமிழை/ வன்னி நிமிளை/ திருநிமிளை/ வத்திராநிமிளை/

வையநிமிளை/ பசுநிமிளை/ விசநிமிளை/ வேங்கை/ படிவப் பாங்கம்/

சோதி நிமிளை என்பன அஞ்சனக்கல்லின் பெயர்கள்

”அஞ்சனமா மண்ணுதலை விஷக்கல் லென்றும்

ஆதிபேரண்ட முடிவிஷக்கல் என்றும் பேரு

குஞ்சனமாம் மூலக்கல் விஷமென்றும் பேரு

முடிவிஷ நடுவிஷக்கல் லென்றும் பேரு

வெஞ்சனமாம் விவேக்கல் லென்றும் பேரு

வேதாந்த வத்தினி மார் பண்டத் தலைமுடிதான்

கஞ்சனமாம் நால்சாதி விஷக்கல்லென்றும் பேரு

கருவான சிரசோட விஷக்கல்லினிடம் பேரெ”

-அகத்தியர் பஞ்ச காவிய நிகண்டு பக்கம் 92

கிடைக்கும் இடம்

பஞ்சாப்

விசயநகரம்

சுவை : கைப்பு

வீரியம் : வெப்பம்

விபாகம் : கார்ப்பு

வகைகள்

சுரேதாஞ்சனம்

நீலாஞ்சனம்

புஷ்பாஞ்சனம்

சவ்வீராஞ்சனம்

ரசாஞ்சனம்

ரக்தாஞ்சனம்

மேற்கண்ட ஆறினுள் கிடைப்பது நீலாஞ்சனம் மட்டுமே

1. சுரோதாஞ்சனம்

புற்றின் மீது உண்டாகும் காளான் போன்ற உருவத்தைப் பெற்று
கொஞ்சம் கறுப்பு நிறமுடையதாய் காவிக்கல்லைப் போன்று இருக்கும்

2. சவ்வீராஞ்சனம்

வெண்மையுடன் கூடிய புகை நிறுத்துடன் இருக்கும்

3. நீலாஞ்சனம்

இது தவிர மற்றவை கிடைப்பதில்லை. இவ்வைந்தும் கிடைக்காத
பட்சத்தில் கூட்டு மருந்துகளில் மரமஞ்சள் குடிநீரில் சம பாகம்
வெள்ளாட்டுப்பால் சேர்த்து நன்றாக காய்ச்சிக் குழம்பு பக்குவத்தில்
எடுத்துச் சேர்க்கின்றனர் இதனை “தாருஹரித்திர ரசக்கிரியா” என
வடநூலார் கூறுவர்

குணபாடம் தாது சீவ வகுப்பு பக்கம் 221

அஞ்சனக்கல் அஞ்சவிதம்

”உருக்கிட்ட சத்தினுட நிறந்தான் கேளு

உயர்கின்ற சரிகை வெள்ளிப் போற்காணுந்

திருக்கின்ற சிவன் தானும் திரிபுரத்தை

தகனந்தான் பண்ணிடவே நகையே செய்தார்

கருக்கிட்ட காதோடு நாடுமலை யெல்லாங்

கருகியே பத்தி முப்புர மெரித்து

முரிக்கிட்ட மலையிலிருந்து வருகித்தா தாய்

முகத்தான அஞ்சவித அஞ்சனக் கல்லாச்சே”

-போகர் நிகண்டு 1700 பக்கம் 652

அஞ்சனப் பாடாணத் தோற்றம்

“மலையினிலெ அஞ்சனப் பாடாணந் தானும்
மருவியேதான் உற்பத்தி மார்க்கங் கேளு
தொலையிலே தான் பூர்வத்தில் சிவனேதானும்
திரிபுரத்தை தகனந்தான் பண்ணும் போது
கலையிலேந் கைசெய்யக் கால்தீ தோன்றிக்
கடந்தமுப்பு ரந்தானும் எரிந்து போக
விலையிலேகா டோடுநா டுமலை யெல்லாம்
வெந்துமேதான் மலையுருகித் தாது வாச்சே”

“வெந்துமெ தான் அஞ்சன்பா டாணமாச்சு
விளக்கமாக கணத்துமேதான் கறுத்துக் காணும்
பந்துமேதான் உபரசத்தின் பட்டாலீயம்
பாங்கான சூதமது கட்டிப் போகும்
சிந்துமேக சரக்கெல்லாம் ஈயமாகும்
சீரியதோர் நாகத்தை கணத்திற்கட்டும்
குந்துமே கொல்லன் பகையால் சாரி யாகும்
கூட்டியேதான் இரும்பிலிட குழைந்து போமே

போகர் 7000 மூன்றாம் பாகம் பக்கம் : 42

நீலாஞ்சனக்கல் தோற்றம்

”கூடவெ நீலாஞ்சனத்தின் தோற்றங் கேளு
குறிப்பாகச் சொல்லிடவே ஐந்து கூறாம்
தேடவேதான் சிவன்தானும் பூரு வத்தில்

திரிபுரத்தை தகனந்தான் செய்யும் போது
நாடவேசி வன்நகைக்க அனல்தீ தோன்றி
நலங்கியுமே திரிபுரந்தான் எரியும் போது
காடவேதான் காடுமலை நாடிடெல் லாந்தான்
கருகியுமே எரிந்திட்டுச் சாம்பலாச்சே”

”ஆச்சே தான் மலைபற்றி எரியும் போது
அடர்ந்த மலை வெந்துருகி தாது தானாய்
போச்சேதான் பூமிக்குள் தான்வி முந்து
பெரிதான அஞ்சனக்கல் தானு மாச்சு
ஏச்சேதான் இப்படியெ தோற்ற முற்ற
எழிலான பேதமது ஐந்துண் டாச்சு
வாச்சேதான் ஐந்துடைய வகையே தன்னில்
வலிந்தபுட்பாஞ் சனமும்ர சாஞ்சனமுமே
அஞ்சனந்தான் சவ்வீராஞ் சனமு மாச்சு
அடர்ந்த சுரோ தாஞ்சனம்நீ லாஞ்ச னம்தான்
பஞ்சனந்தான் பேதங்களஞ்சு மாச்சு
பசந்தபுட்சாஞ் சனந்தானே தவளமாகும்
தஞ்சனந்தான் சயித்தியமாம் மகாந்த ரமாகும்
தறித்தெடுக்கும் விக்கல்களைச் சாடிப் போகும்
வஞ்சினந்தான் எலும்புக்குள் சரத்தைப் போக்கும்
இளஞ்சு போக்குவிக்கும் கணித மாமே”

செய்கை

உரமுண்டாக்கி
வெப்பகற்றி
சமனகாரி
வாந்தியுண்டாக்கி
வியர்வை பெருக்கி

பொதுகுணம்:

”சந்நிசுரம் மேகம் ஷய தாகம் நேத்திர நோய்
வன்னிரச வேகம் மறைவதன்றி மன்னுடலம்
விஞ்சு குளிர்ச்சியோடு வீறழகு காந்தியுமாம்
அஞ்சன கல்லுக் கறி”

(வேW)

”thhpWfகும் பூண்முலையாய் வாய்த்தநீ லாஞ்சனத்தால்
நீருறுத்துங் கண்ணோய் நிலைகெடுங்காண் - பாரினிலே
எல்லாச் சுரமும் இரத்தபித்த தோஷமுதற்
பொல்லா mWபுண்ணும் போம்”

பொருள் :

நீலாஞ்சனக் கல்லால் சந்நி/ சுரம்/ மேகம்/ தாகம்/ நீரைவடித்துக்
கொண்டிருக்கும் கண்ணோய்/ வன்னி என்னும் இரச தோடம்/
இரத்தபித்தம்/ புண் முதலியன நீங்கும்

சரீரத்திற்கு குளிர்ச்சியையும், அழகையும் கொடுக்கும்

அஞ்சனக்கல்

”கண்ணினழ லையுடன் காணவொணா கூச்சம்போம்
புண்ணும்புரையும்போம் பொய்யல்ல மண்ணுலகில்
அஞ்சனக் கல்லதனா லாம்பயனை ஈதென்று
பிஞ்சு மதிநுதலாய் பேசு”

அஞ்சனக்கல்லை முறைப்படி உபயோகப் படுத்த
கண்சிவப்பு/ கண்கூச்சம்/ கண்களில் உண்டாகும் விரணம்/ கண்மறைப்பு
முதலியவைகள் நீங்கும்

-பதார்த்த குண விளக்கம் தாது வர்க்கம் பக்கம் 35

நீலாஞ்சனத்தின் குணம்:

”நீலமா மஞ்சனத்தின் நிமிர்சுவை கடுக ஷாயம்
ஏலுறுஞ்உஷ்ண வீர்ய மிடுசரா சரவி ஷங்கள்
மேலுறுவிழி நோய் ஸ்போட மிகுரணந் தினவும் போக்கும்
நூலிணை யறிந்த மேலோர் நுவன்றன ரிதனைப் பாரில்”
நீலாஞ்சனம் கடு/ கஷாய சுவைகளையும் உஷ்ண வீர்யத்தையும்
உடையது கர/ சங்கம/ தாவர விஷங்கள்/ விழிரோகம்/ விஸ்போடம்/
ரணம்/ தினவு இவற்றைப் போக்கும்.

”வன்னிமறு வெட்டுப்புண் மாபிரமி யக்கிச்சூர்
சன்னியனல் கீடவெட்டு தாகஞ்சூடு ன்னசிர்க்கு
நீங்கு நீ லாஞ்சனத்தா னீடொளிதன் ணேருக்க
மோங்கு நீ லக்குயிலே யோர்”

பாதரசத்தின் எண்வகை தோஷங்களில் ஒன்றாகிய
வன்னிதோஷம்/ வெட்டுகாயம்/ பிரமேகம்/ விழி நோய்/ சன்னிபாத சுரம்/
புழுவுண்டு/ எரிச்சல்/ அழலை/ நீங்கும்

-பதார்த்த பஞ்ச குண மஞ்சரி 218 – 19

சுத்தி:-

நீலாஞ்சனத்தைப் பொடித்துப் பழச்சாறுவிட்டு அரைத்து ஒரு நாள்
வெயிலில் வைத்தெடுக்க சுத்தியாகும்

(வேW)

மாதுளம் பழச் சாற்றில் அஞ்சனக்கல்லை ஊறவைத்தெடுத்தாலும்
சுத்தியாகும்.

-குணபாடம் தாது சீவ வகுப்பு பக்கம் 222

(வேW)

அஞ்சனக் கல்லை வாங்கித் தட்டி கிழிகட்டி புளியாரைச் சாற்றி
லூறப் போட்டு ஒருநாள் கழித்தெடுத்துக் கழுவிப் போட சுத்தியாச்சு

-அனுபோக வைத்திய பிரம்ம ரகசியம் பக்கம் 7

Botanical Aspects of Sirukeerai

It is a erect, diffuse, stout annual herb.

According to Bentham and Hookers classification “Sirukeerai” is
classified as follows

Kingdom : Plantae
Division : Magnoliophyta
Class : Magnoliopsida
Order : Caryophyllales

Family : Amarathaceae
Genus : Amaranthus
Species : Gangeticus

Synonyms:

Amaranthus tricolor

Amaranthus melancholicus

Amaranthus polygamus

Vernacular names

Tamil : Araikeerai, Mulakkeerai, Sirukeerai, thandukeerai

Mal : cheera

Hin : Chaulai, latnatiya, lalsay

Guj : lambho

Oriya : Balal sag, lal khada

Tel : Doggelikura, errato fakura

Assam : Lalsak

Phytochemicals

Amaranthus leaf contain moisture 8.5 7% protein 4% fat .5%

fibre 1%, Carbohydrate 6.1%

Minerals : 2.7 gm

Calcium : 397 gm

Phosphorous: 83gm

Iron : 25.5 gm

Thiamine : 0.03gm

Riboflovin : 0.3gm

Niacin : 1.2 gm

Carotene : 5.5 mg/100gm

Aminoacids reported to be present in the leaves are.

Arginine 3.8, cystine .7, histidine 2, Leucine 5.9, isoleucine 4.7, lysine 4, threonine 2.2 phenylalanine 2.8, tryptophan 1.1.

I also contain Amarantin, isoamarantin and betanin. It also contain minor minerals like Ca, manganese, magnesium, sodium.

Gunapadam Aspects

கீரை தண்டினத்தைச் சேர்ந்தது

வேறுபெயர் : சில்லி

-குணபாடம் மூலிகை வகுப்பு பக்கம் 327

”வசனித்தோம் நாகநாத மென்றும் பேரு

வளமான சாகிலியனென்றும் பேரு

நகனி த்தடரோதய மென்றும் பேரு

நளினமென்ற சாரிதங்களென்றும் பேரு

வெதனித்த ஒக்கினி மாதரென்றும் பேரு

விளங்கிய தோர் முகச்சுருதியென்றும் பேரு

தெசனித்த கனர் வாகம் சுண்டி யென்றும் பேரு

தென்பான் சிறுகீரையிதற்குப் பேரே”

-பஞ்ச காவிய நிகண்டு சரஸ்வதி மகால் வெளியீடு 157

பயன்படும் உறுப்புகள்

இலை/ பூ/ வேர்/ தண்டு/ வித்து

சுவை : இனிப்பு

பிரிவு : இனிப்பு

தன்மை : சீதம்

செய்கை : சிறுநீர்ப் பெருக்கி
குளிர்ச்சியுண்டாக்கி
மலமிளக்கி

குணம் :

“கண்புகைச்ச நேத்திரநோய் காசம்படலம்

புண்கிரிச்ச ரஞ்சோனப பொங்குபித்த- மண்பரவு

தாவரவிடங்களும் போம் தாழத் திருவுமுண்டாம்

கூறுசிறு கீரைதனைக் கொள்”

இதனால் கண்புகைச்சல்/ கண்காசம்/ படலம்/

இரசத்தாலுண்டாகும்/ நஞ்சு/ புண்/ நீர் எரிச்சல்/ வீக்கம்/ அழல்நோய்/

நஞ்சுகள் ஆகிய இவை போம் அழகு உண்டாகும்

வழக்கு

இக்கீரையை சமையல் செய்து சாப்பிட்டு வர மேற்கூறிய
நோய்கள் விலகும்.

சிறுகீரைச் சமூலத்தையும் மிளகுப் பொடி/ உப்பு/ நெய்
இவற்றையும் சேர்த்துப் பக்குவம் செய்து ஒரு மண்டலம் வரைக்கும்
உண்டுவர புத்திக்கூர்மை/ ஞாபகசக்தி இவைகள் உண்டாகும்.

சிறுகீரையை உணவு முறைப்படி செய்து உண்ணில் அனல் நோய்கள் யாவும் ஒழிந்துபோம். நன்றாகச் சிறு நீரிறங்கும்.

சிறுகீரையை முறையே பாகஞ் செய்து புசித்து வந்தால் அது நோயைப் போக்கி வன்மையைத் தந்து இனிய குரலையும் உண்டாக்கும்.

அஞ்சனக்கல் சேரும் மதுமேகத்துக்கான மருந்துக்கள்

1. அஞ்சனக்கல் பற்பம் :

புளியிலை/ சிறுகீரை இவற்றை அரைத்து குகை போல் செய்து அதற்கு மேலே மூடியொன்றும் செய்து வைத்து அக்குகையினுள்ளே அஞ்சனக் கல்லை நிறையயிட்டு மண்சீலை செய்து கசபுடத்தில் வைத்தெடுக்க வெண்சங்கு நிறம் போல நீறு உண்டாகும். இதைத் தண்ணீரில் போட்டால் மிதக்கும்.

அளவு : தேவையான அளவு

துணை மருந்து : தேன்

தீரும்நோய்கள் : மேகவகை இருபது

மருந்து செய்முறைகள் (124)

2. அஞ்சனக்கல் பற்பம்

அரை வீசை சிறுகீரையை வெண்ணைய்ப் போல அரைத்து குகையும் மூடியும் செய்து அதற்குள் 5 பலம் அஞ்சனக்கல்லை வைத்து மூடி 7 சீலை மண் செய்து ஒரு முழ சதுரமான புடம் போட்டு 1 நாளாறவிட்டெடுக்க பஸ்பமாயிருக்கும் ஒருவேளை பஸ்பமாகாமல் அரை குறையாய் இருந்தால் முன்போல போடவும் 3 புடத்தில் எவ்விதமும் பஸ்பமாகிவிடும்.

பிரமாணம் : குன்றியெடை 3(390 மி.கி) தேனில் 2 வேளையும்
உட்கொள்க

உபயோகம்: 20 வகை மேகங்களும் தீரும்

-கண்ணுசாமி பரம்பரை வைத்தியம் பக்கம் 216.

அஞ்சனக்கல் சேரும் பிற மருந்துக்கள்

1. நீலாஞ்சன பற்பம்:

நீலாஞ்சனக்கல் பொடி - 1 பங்கு
மாண்கொம்பு சீவல் - 2 பங்கு

இவைகளை மூசையிலிட்டு இடைவிடாமல் கிளறி புகை
எழாவண்ணம் எரித்து அடியில் நிற்பதை பொடித்து ஒரு தக்க
மூசையிலிட்டு வெள்ளை நிறமாகும் வரை (2 மணி நேரம்) தீயை
படிப்படியாக அதிகரித்து எரித்து அடியில் நிற்பதை மெல்லிய
பொடியாகும்படி அரைத்துக் கொள்ள வேண்டியது.

அளவு : 200 மி. கிராம்

அனுபானம் : பால்

தீரும் நோய்கள் : சுரம், கீல்வாதம் , நாட்பட்ட தோலைப் பற்றிய நோய்
போகும்.

2. சிறுநாவல்பூ, அபின் இவைகளுடன் நீலாஞ்சனம் இரண்டு
உளுந்தொடை கொடுக்க அதிசாரம் , கிரகணி நீங்கும்.

3. நீலாஞ்சனம்/ இந்துப்பு/ கோஷ்டம்/ தகரைவிதை/
வாய்விளங்கம்/ கடுகு இவைகளை புளித்த நீரில் அரைத்து லேபமிட
மண்டலகுட்டம்/ நமைச்சல் நீங்கும்.

4. சர்க்கரை, நெய் இரண்டிலும் கலந்து கொடுத்தால் பித்தம் சாந்தமாகும்.

5. சுக்கு, கடுக்காய், வெல்லம் இவற்றில் கொடுக்க கபரோகம் நீங்கும்.

6. நீலாஞ்சனம்/ சுத்த சுவர்ணபற்பம் இரண்டையும் கலந்து வெண்ணெய்/ சர்க்கரை/ தேன் இவற்றின் அனுபானத்தோடு குன்றி எடை அருந்தி வந்தால் சயம் நீங்கும். பலமுண்டாகும்.

7. நீலாஞ்சனக்கல்லை அரைக்க கறுப்பு நிறமுடையதாயிருக்கும். வட இந்திய பெண்கள் கண் இமையிலும் கண் புருவத்திலும் மை தீட்டிக் கொள்கிறார்கள்.

8. சூரிய வெப்பம் கண்களில் தாக்காதபடி பாதுகாப்பதாகவும் வனப்பை உண்டுபண்ணுவதாகவும் கருதப்படுகிறது.

9. குதிரைகளுக்கு பலத்தை உண்டு பண்ணுவதற்கு கொடுப்பதுண்டு.

-குணபாடம் தாதுசீவவகுப்பு Page No .222

10.ஏகாதச மணிகள்:

நவமணிகள்	-9
அஞ்சனக்கல்	-1
படிகம்	-1

ஆகிய 11சரக்கும் சேர்ந்து ஏகாதசமணிகள் என அழைக்கப்படுகிறது.

-குணபாடம் தாது சீவ வகுப்பு பக்கம் 340

11. நீலாஞ்சன மை

”கருங்கல் கண்டொவ் வொன்று தொடி

கனகச் சகலை துருக்கமலர்

பரும்படி கவ் வெளை பனி மீனாம்

பகர்முறை நிட்கம தொன்றேகால்”

வருமை யரைக்கா லுதையரை

வளவில் வையிரு குரக்கத்தம்

தருவெண் சாரணை பெண்ணைமடல்

சாலைச் சேப்பூ வரையிரண்டே”

”சாம மரைதனிக் காயவிடு

தன்னை யளிக்கோ டன்னிலரை

ஆமலு தேகுழம் பாயினெடு

வதுகண் ணிடுகண் பூபடலம்”

”நாம முத்துக் காசபிலம்

நன்றாய்த் தீருஞ் சின்னாளில்

நாம மஞ்சனக் கண்மையென

நாட்டினாற்றெம் முனிவரரோ”

அஞ்சனக்கல் - 1பலம் (35 கிராம்)

சீனாக்கற்கண்டு - 1 பலம் ”

பீதரோகிணி - 1 ¼ வராகன்(5.5 கிராம்)

குங்குமப்பூ - 5 வராகன்(21கிராம்)

படிகபற்பம் - 5 வராகன்(21 கிராம்)

பச்சை கற்பூரம் - 2½ வராகன்(10.50கிராம்)

இவைகளை பொடித்து ஒன்று சேர்த்து வில்வ இலைச்சாறு/
முசுமுசுக்கைச் சாறு/ வெள்ளை சாட்டறணைச்சாறு/ பனைமட்டைச்சாறு/
கரிசாலைச் சாறு/ நந்திப்பூசாறு இவைகளால் வகைக்கு இரண்டு சாமம்
(6மணி) நேரம் அரைத்து உலர்த்தி தேனில் அரைத்துக் குழம்புப்
பக்குவத்தில் எடுத்துக் கொள்ளவும் இதனைக் கண்ணில் தீட்டிவர பூ/
படலம்/ காசம்/ பில்லம் நீங்கும்

-குணபாடம் தாது சீவ வகுப்புPage No : 223

சூலைக்கு கொடுக்கப்படும் மருந்துகளில் அஞ்சனக்கல் சேர்கிறது.

அனுபவ வைத்தியமுறை

சரஸ்வதி மகால் வெளியீடு

ஆசிரியர் டாக்டர் T.V. வரதராஜன் D.A.M

12. சூதமணி

”கட்டியாஞ் சூதத்தை மத்தங்காயில்

கருகாமல் புடம்பத்துப் போட்ட பின்பு

துட்டியாஞ் சூடனுட தீயில் வாட்டி

துடியாக்க கரண்டி தனி லெண்ணை குத்திவுருக்க

கெட்டியாத் திரண்டு மணியாகும் பாரு

கேசரத்தி லோடவென்றால் சாரணையே தீரு

வட்டியாம் வாதத்தில் தங்கஞ் சேரு

மாசத்த செந்தூரம் பண்ணிடாயே”

13. களங்கு வேதை

“ பண்ணவே தம்பனைக்கு லாகரியை யூட்டு

பாங்கான குருவுக்கு வீரஞ்சீனம்

புன்னவே புழுகோடு பூரங் கூட்டு
பூப்போல மலர்ந்துமே குருவுமாகுங்
கண்ணவே காயசித்தி சுறுக்கிலாகுங்
காமத்தைத் தள்ளியே செந்தூரமுண்ணு
நண்ணவே நரைமாறிப் பாலையாகும்
நாதாந்த அஞ்சனக்கல் சத்துமாமே”

“அஞ்சனக்கல் சத்ததுவும் பலந்தானெட்டு
அதிகமாம் பரியதுவும் பலந்தானொன்று
குஞ்சனக்கல் குகையில் நின்று வருகும் போது
கொடுத்திடு நீபலம் ரெண்டு முன்னாகந்தான்
முஞ்சனக்கல் மூன்று மொன்றா யுருகும்
முன்கட்டும் லிங்கமொரு பலந்தான் போடு
தஞ்சனக்கல் சவ்வீரம் பலந்தான் போடு
சாத்தியெல்லாங் காரமிட்டு வருக்கிடாயே”

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14. களங்கு செந்தூரம்

”இட்டு நன்றா யுருக்கிடவே களங்கமாகும்
யினமான ரவிமதியில் நூற்றுக் கொன்றீய
பட்டு ஒன்றாய் மாத்ததுவும் பதினாறாகும்
பாங்கான களங்குக்கு நாலத் தொன்று
கெட்டு ஒன்றாய் கெந்தியது பொடித்துக் கூட்டி
கிளர்ந்த பொற்றலைச் சாற்றிலஞ்சு நாளாட்டி

விட்டு வொன்றாய் வில்லை பண்ணியகலில் வைத்து மூடி
மேன்மையாய்ப் புடம் போடச் செந்தூரமாமே”

“செந்தூரந் தினங் குன்றிப் பாலிலுண்ணச்
சிறுகதிர்போல் மேனியுமோ சிவப்புமாகும்
யெந்தூரஞ் சூரியனின் கிரணத்துள்ளே
யெழும்பலாஞ் செடத்துக்கு யிருக்கமில்லை
தந்தூரஞ் சந்திரனில் குளிர்ச்சியில்லை
தாக்கான யிடியுக்குள் பயமோயில்லை
மந்தூர மாருதத்தில் சுழலொட்டாது
வாய்திறக்காச் சித்தியுமா மாட்டிக்கானே”

போகர் நிகண்டு 1700 Page : 653

15. நீலாஞ்சனச் சத்து

“ பாரேதான் நீலாஞ்சனம் பலந்தான் பத்துப்
பாங்காகத் தூள்செய்து கிளியே கட்டி
காரே தான் காடியிலே கொதிக்க வைத்துக்
கலந்துத்தான் ஒருசாம மெரித்த பின்பு
போரேதான் உலரவிட்டுக் கல்வத் திட்டு
பொரித்ததுவோர் வெங்காரம் பலந்தான் போடு
தேரேதான் திசைகாரக் குடோரி யரையே
செப்பமாக வீரமரைப் பலமும் போடே”
”போட்டொல்லாம் வெடியுப்பு நீரா லாட்டி
பெரிதான வில்லைதட்டிப் புடத்தைப் போடு

கூட்டெல்லாத் தூள் செய்து குகையி லிட்டு
கோரமாக வுதியோசத் தெல்லாம் வாங்கு
பூட்டெல்லாம் சத்ததுவும் ஈயம் போலாம்
பொருக்கியுமே வேறேவைத்துக் கரடு தன்னைத்
தீட்டெல்லாம் தூள் செய்து புதுக்குகையி லிட்டு
செம்மியுமே உலையில் வைத் துருக்கி டாயே”

”உலையில்வைத் தைந்து முறை யுருக்கித் தானும்
ஒருமிக்கச் சத்தெல்லாம் மறுகுகையி லிட்டு
அலையவுமே ஆறவிட்டு ருக்கிக் கொண்டு
ஆதியான நட்பதனில் பதினொ ருக்கால்
கலையினிலே சாய்த்திட்டு வைத்துக் கொண்டு
காணியான சூதத்தில் சாரணை செய்து
மலையினிலே இருக்கின்ற அதிச யங்கள்
வடகடலும் தென்கடலும் காண லாமே”

-(போகர் 7000 III பாகம் Page : 122)

17.நீலாஞ்சனக் களங்கு

”காணலாமெ னுஞ்சத்து பலந்தான் நான்கு
குற்றமிலாத் தங்கமது பலந்தா னொன்று
ஊணலாகக் குகையிலிட்டு வருகும் போது
உறப்போடு தங்க மெடை நாகம் போடு
தோணலாகச் சூதமது பலமு மொன்று
ஆணலான அரிதாரம் பலமு மொன்று

அரைத்துமே மூன் றையும் பொற் றலையாலாட்டே
ஆட்டியுமே வருண்டை செய்து சத்துருகு முகத்தில்”
”ஆதரவாய் உருண்டையைத்தான் சுருக்குப் போடு
ஊட்டியுமே உருண்டை யெல்லா மான பின்பு
உகந்துமே தான் எடுத்துப்பார் களங்குமாகும்
நாட்டியுமே நவலோகம் நூற்றுக் கொண்டு
நலமாக வட்கொண்டு கனகம் பத்தாம்
தீட்டியுமே சொந்தூரம் செய்தே யுண்ணு
சிறந்தகதி ரொளிபோலே தேகமாமே
தேகசித்தி லோகசித்தி ககன சித்தி”
”சிறந்ததான வாசித்தி எல்லா மாகும்
முகசித்தி ஐந்தான அஞ்சு னத்தில்
பகரவேதான் ஒவ்வொன்றில் கோடி சங்கம்
யோகசித்தி சீக்கிரத்தில் உகந்து கூடும்
ஒவ்வொன்றுக் கொவ்வொன்று இதிலே பேதம்
வேகசித்திக் கோடிக்குத் தாண்டி யோகும்
வெகுபோக்கு வுண்டிதிலே ஆழப்பாரே”

-(போகர் 7000 – III பாகம் Page 122 123)

17. அஞ்சனக்கல் சத்து

”நன்றான சவுக்காரச் செயனீராலே
நாகரீகமாங் கார வீரம் லிங்கங்
குன்றான துரிசி யொடு நாலுங் கேளு
குறியான வகைக்கு யொருபலந்தான் கூட்டி
அன்றான நீர்விட்டு அரைத்தஞ்சு நாள்தான்
அளிமூன்று பங்காகப் பண்ணி வைத்து

நின்றான அஞ்சனக்கல் பல்ந்தா னெட்டு

சிறுகவே நறுக்கியே காடி தனிற் போட்டே”

(Page 651)

”காடிதனில் போட்டுமே மூன்றுநாள் தான்

காய்ச்சியே கொதிக்க வைத்து இறக்கிக் கொண்டு

கோடிதனில் கொள்ளுக்குள் வேக வைத்து

குறிப்பாக யெடுத்துமே முன்மருந்து கூட்டி

பொடிதனில் பிசறியே குகையில் வைத்துருக்கி

பொறுக்கியே சத்தெல்லாம் மறுபங்கிலூட்டி

ஒடி தனிலுருக்கியே மருந்திட்டுப் பிசிறி

வுண்மையாய் மூன்று திர முருக்கிடாயே”

-போகர் நகண்டு 1700 – (Page 652)

18. அஞ்சனக்கல் கிண்ணம்

”இல்லான சத்துக்குள் கிண்ணி பண்ணி

கனமான அடித்தூரில் சீலை செய்து

வல்லான வாலுகையின் மேலே வைத்து

வாத்திடுவாய் சுத்தித்தி சூதம் நாலு

புல்லான பொற்றைலையின் சாறு வார்த்து

போக்காக எண்சாமம் யெரித்தாயானால்

அல்லான அட்டைபோல் கொண்ணையாகி

ஆற்றிகமாய்க் கட்டி யாகுந்தானே”

பொருள்:

காரம், வீரம், லிங்கம், தூரிச இவை எல்லாம் வகைக்கு 1 பலம்
எடுத்து சவுக்கார செயநீர் விட்டு அஞ்சுநாள் அரைத்து அதை மூன்று

பாகமாகச் செய்து கொண்டு அஞ்சனக்கல் 8 பலம் எடுத்து அதை நறுக்கி காடியில் போட்டு. மூன்று நாள் சென்ற பிறகு அதைக் காய வைத்து கொதிக்க வைத்து இறக்கிக் கொண்டு அதைக் கொள்ளுக்கு உள்ளே வைத்து வேகவைத்து உருக்கி சத்தெல்லாம் பொறுக்கிக் கொண்டு மற்றொரு பங்கு மருந்து கூட்டி பிசிறி உருக்க வேண்டும் இதேபோல் மற்றொரு பங்கு மருந்து சேர்த்து உருக்கவேண்டும்.

உருக்கிய சத்தின் நிறம் வெள்ளிச் சரிகை போல் இருக்கும். சிவன் ஒரு சமயம் திரிபுரத்தை எரிக்க ஆயத்தமானார். அப்போழுது அவர் சிரிக்கும் போது காடு மலை நாடு எல்லாம் எரிந்து முப்புரமும் எரிந்தது அப்போழுது மலை உருகி அஞ்சுவிதமாக அஞ்சனக் கல்லாயிற்று.

இந்த அஞ்சனக்கல் சத்தால் ஒரு கிண்ணி செய்து கண்ணியின் அடியில் சீலை செய்து கிண்ணியில் சுத்தித்த சூதம் 4 பலம் வார்த்து பொற்றலைச் சாறு விட்டு 8 சாமம்(24 மணி) எரித்தால் அட்டை போல் வெண்ணையாகி கட்டி நிற்கும்

-போகர் நிகண்டு 1700 பக்கம் 652.

19. சந்தனாதி தைலம்

உபயோகம் : தலையில் தேய்த்து குளிக்க

தீரும் நோய் :மேகம்/ உடல் எரிச்சல்/ அஸ்திகாங்கை/ உஷ்ணம்

-அகத்தியர் 2000 III பாகம் 228

20. கனகரத்தினாதி அஞ்சனம்

உபயோகம் : அஞ்சனமிட

தீரும் நோய் : வெள்ளொளுத்து

-அகத்தியர் 2000 III பாகம் 354

21. சூலைக்கட்டுக்குப் புகை:

-சரபேந்திரர் வைத்திய முறைகள்
சூலை மூல குஷ்ட பித்த ரோக முறைகள்.

22. வடவானல ரசம்

அளவு : 1 குன்றி எடை(130 மி.கி)
அனுபானம் : இஞ்சிச்சாற்றில் திப்பிலித்தூள்
தீரும் நோய் : அடுக்குவாதம்/ தனுர்வாதம்

சரபேந்திரர் வைத்திய முறைகள் வாத ரோக சிகிச்சை 81

23. அஞ்சனக்கல் பற்பம்

வேப்பமரத்தைக் குடைந்து அதனுள் 1 பலம் அஞ்சனக்கல்லைச் செருகி குடைந்தெடுத்து, துகளைக் கொண்டே அடைத்து சாணம்பூசி 21 நாள் விட்டுவைத்து, பிறகு அக்கல்லை எடுத்துக் கல்வத்திலிட்டு தானாகப் பயிரானதும் நாட்சென்று கட்டை பாய்ந்ததுமான சிறுகீரைச் சாற்றால் நான்கு சாமம் அரைத்து, ஒரே வில்லையாகத் தட்டிக் காய வைத்து அந்த மூலிகைச் சமூலத்தை அரைத்துக் கவசமிட்டு, உருண்டையாகச் செய்து, அதன் மேல் மண்சீலை ஏழு செய்து, ஈரம் வற்றச் சிறிது சாம்பலில் புரட்டி 50/ 60 வறட்டியில் புடமிட பற்பமாகும். இதை செய்யும்போது ஒரு கழஞ்சு முப்புச்சுண்ணம் கூட்ட அதிக நன்மையைத் தரும் நிறமும் நன்றாயிருக்கும். இந்த பற்பத்தில் வேளைக்கு 2-3 அரிசி யெடை(130 முதல் 195 மி.கி) தினம் 2 வேளை தகுந்த அனுபானங்களில் கொடுத்து வரச் சுரம்/ நாட்பட்ட மேக ரோகங்கள், ஷயம் முதலியவைகள் குணமாகும்.

23 நீலாஞ்சனக்கல் பற்பம்

ஒரு தோலா எடை கறுப்பு நிறமுள்ள அஞ்சனக்கல்லை மிருதுவாகத் தூளாக்கி, ஒரு அகலில் பாதி பரப்பி, அதன் மீது சிங்கம் போட்ட ஒரு தாம்பிர காலணாவை நன்றாய் சுத்தப்படுத்தி வைத்து அதன் மேல் பகுதி அளவுள்ள மற்றத் தூளையும் போட்டு, மேல் அகல் மூடி, சீலை செய்து 20 வறட்டியில் புடமிடவும். புடம் நன்றாய் ஆறினதும் மேல் அகலை நீக்கிப் பார்க்க முன் வைத்த தாம்பிரக் காலணா கனத்து வெட்டையாக இருக்கும். இதை கல்வத்தில் போட்டு சிதறாமல் இடித்து தூள் செய்து, 2,3 சாமம்(6-9 மணி நேரம்) கையோடு அரைக்கக் கறுப்பு வர்ணம் வரும். அத்தருணம் சக்திக்கேற்றவாறு அரைக்கால் எடை முத்தும்/ வீசம் எடை,(1.4 கி.கி) உயர்ந்த பச்சைக் கற்பூரமும் கூட்டி ஒரு சாமம் அரைத்துப் புட்டியில் பத்திரப்படுத்துக. வேண்டும் போது காரீயக் கம்பியைப் புட்டிக்குள் செருகி எடுத்து கண்களில் தீட்டிவரக் கண்களில் உண்டான பல ரோகங்கள் நீங்கிக் கூர்மையான பார்வையும் நல்ல வனப்பும் உண்டாகும்.

-பதார்த்த குண விளக்கம் தாது வர்க்கம்(36)

சிறுகீரை சேரும் பிற மருந்துகள்

24. தாம்பிரச் செந்தூரம்

அளவு : பணவெடை (488 மி.கி)1 மண்டலம் (இருவேளை)

தீரும் நோய் : குஷ்டம் / மேகம் / ஈளை/ மந்தாரகாசம்

-ஆகத்தியர் பரிபூரணம் 400(121)

25. புளியிலை நெய்

அளவு : 5 கிராம் இருவேளை

தீரும் நோய் : காமாலை

26. பஞ்சரக்னிச் சூரணம்:

அளவு : மூவிரல் கொள்ளுமளவு(1 கிராம்)

அனுபானம் : தேன்

தீரும் நோய் : நீராமை/ மூலம் / வாதசுரம்

அகத்தியர் இரண்டாயிரம் III பாகம் பக்கம் 132

27.மகாபிருங்காமலக தைலம்

உபயோகம் : உட்பிரயோகம்

தீரும் நோய் : தாகம் , தலைவலி, பாண்டு, உழலை, கைகாலெரிவு

-அகத்தியர் இரண்டாயிரம் III பாகம் பக்கம் 226

28. சர்வ குலாந்தக தைலம்

உபயோகம் : உட்பிரயோகம்

தீரும் நோய் : சயம் , இருமல் , வாதகாசம்

-அகத்தியர் இரண்டாயிரம் III பாகம் பக்கம் 259

Materials and Methods

MATERIALS AND METHODS

The test drug “Anjanackal parpam” was prepared according to the reference found in "Mega Roga Nivarana Pothini Ennum Neerilivu Roga Sichichai " page 226 by Dr. Abdull Hakim

Collection of the test drug:

Anjanackal was bought from a raw drug store at Nagercoil after identification.

Purification of the Test drug;

The raw drug Anjanackal was purified according to the process found in the Gunapadam Thathu Jeeva Vaguppu page no: 221

Anjanackal was rubbed in a Kalvam with lime juice for 1 day and made in to villai and then dried under sunshade.

Preparation:

1400gm of Sirukeerai (*Amaranthus gangeticus*) was made in to the paste, 175gms of Anjanackal was covered with the paste of Sirukeerai and made into a Gugai and lid. Then this gugai was subjected

to one muzha sadura putam and made into parpam. The same process was repeated for six more times till the perfect form of parpam was attained.

Route of administration:

Oral route

Dose :

130mgs of Anjanackal parpam twice a day with ghee after meal.

The drug thus prepared was used for the following.

1. Biochemical analysis
2. Pharmacological analysis
3. Heavy metal analysis by AAS method
4. Antimicrobial studies
5. Toxicity studies
6. Clinical assessment

Amaranthus gangeticus



Anjanackal Parpam



Anjanackal Villai



Bio-Chemical Analysis

BIO-CHEMICAL ANALYSIS OF ANJANAKKAL PARPAM

PREPARATION OF THE EXTRACT

100 mgs of Parpam is weighed accurately and placed in a clean beaker and added a few drops of conc. HCL and evaporated it well. After evaporation cooled the content and added a few drops of conc. Nitric acid and evaporated it well. After cooling the content and add 30ml of distilled water and dissolved it well. Then it is transferred to 100ml volumetric flask and made up to 100ml with distilled water mix well. Filter it then it is taken for analysis.

QUALITATIVE ANALYSIS

S.NO	EXPERIMENT	OBSERVATION	INFERENCE
1.	<u>TEST FOR CALCIUM</u> 2ml of the above prepared extract is taken in a clean test tube. 2ml of 4% Ammonium oxalate solution is added to it.	A white precipitate is formed	Indicate the presence of Calcium
2.	<u>TEST FOR SULPHATE</u> 2ml of the extract is added to 5% barium chloride solution	No white precipitate is formed	Absence of Sulphate
3.	<u>TEST FOR CHLORIDE</u> The extract is treated with silver nitrate solution.	A white precipitate is formed	Indicate the presence of chloride
4.	<u>TEST FOR CARBONATE</u> The substance is treated with concentrated HCL	No brisk effervescence is formed	Absence of carbonate
5.	<u>TEST FOR ZINC</u> The extract is added with Zinc potassium ferro cyanide solution	A white precipitate is formed	Indicate the presence of Zinc

6.	<u>TEST FOR IRON FERRIC</u> The extract is treated with concentrated Glacial acetic and potassium ferrocyanide	No blue colour is formed	Absence of ferric
7.	<u>TEST OF IRON FERROUS</u> The extract is treated with concentrated Nitric acid and ammonium thiocyanate	Blood red colour is formed	Indicates the presence of ferrous iron
8.	<u>TEST FOR PHOSPHATE</u> The extract is treated with ammonium Molybdate and concentrated nitric acid	No Yellow precipitate is formed	Absence of phosphate
9.	<u>TEST FOR ALBUMIN</u> The extract is treated with Esbach's reagent	No yellow precipitate is formed	Absence of Albumin
10.	<u>TEST FOR TANNIC ACID</u> The extract is treated with ferric chloride	No Blue Black precipitate is formed	Absence of Tannic Acid
11.	<u>TEST FOR UNSATURATION</u> Potassium permanganate solution is added to the extract.	It does not get decolourised	Absence of unsaturated compound
12.	<u>TEST FOR THE REDUCING SUGAR</u> 5ml of Benedict quantitative solution is taken in a test tube and allowed to boil for 2mts and added 8-10 drops of the extract and again boil it for 2 mts.	No Colour change occurs	Absence of reducing sugar
13.	<u>TEST FOR AMINO ACID:</u> One or two drops of the extract is placed on a filter paper and dried it well. After drying, 1% Ninhydrin is sprayed over the same and dried it well.	No violet colour is formed	Absence of Amino-acid

Inference : The given sample of Anjanackal parpam Contains calcium, chloride, Zinc Ferrous iron.

Pharmacological Analysis

PHARMACOLOGICAL ANALYSIS

Hypoglycaemic Study of Anjanackal parpam

As per the reference *Anjanackal parpam* is indicated for Madhumegam

Reasons for choice of rabbit:

1. Can be handled easily
2. Several number of blood samples can be taken
3. Blood sugar regulation is more stable and more predictable than rat or mice.

Aim

To evaluate hypoglycaemic activity of Anjanackal parpam.

Materials and Methods:

The test drug 1gm of Anjanackal parpam in 5ml of water 2ml of test drug was given to test group.

Procedure:

Six healthy young rabbits fasted for 18 hours weighing 1-1 ½ kg were selected. Rabbits were kept in a clean condition. Before drug administration fasting blood samples were drawn from marginal ear vein of rabbits at 0hr for blood sugar analysis.

Then 6 rabbits are divided into 3 groups each containing 2 groups. 2 rabbits received 5ml of water and kept as a control group. The second group of rabbits received 1mg of Glibenclamide per 1kg body weight and kept as standard group. Third group of rabbits received 1gm/kg of test drug. Then the blood samples were collected at 1 ½ hrs and 3hrs after drug administration. During the experiment period the rabbits were fasted till the net Blood sugar was estimated according to Enzymatic method.

Result

Details of experiments and results are shown in the Table

Sl. No	Name of Drugs /Groups	Dose per Kg of Body weight	Value of fasting samples	Value of PP samples after 1 ½ hrs	Reduction difference in mgs	Percentage reduction	Remarks
1	Control	Water 5ml	80mg	81mg	-	-	No
2	Standard	Glibenclamide 3mg	91mg	62mg	29mg	31.86mg	Good
3	Test Drug	100mg	105mg	85mg	15mg	15mg	Significant

Inference

The test drug Anjanackal parpam shows 15% reduction in blood sugar level when compared with standard drug. It shows significant hypoglycaemic action when compared to that of standard drug.

Anti Microbial Study

ANTI MICROBIAL STUDY

TESTING FOR ANJANACKAL PAMPAM DISC SENSITIVITY BY KIRBY BAYER METHOD

The sensitivity of the disc is determined by Kirby Bayer Disc diffusion method.

Aim:

To determine the anti microbial activity of an antibiotic against the test organism.

Principle

The principle of antibiotic sensitivity test is simple, disc saturated with known concentration of antibiotic are placed on agar plates that has been inoculated with the test organism. The disc pickup the moisture and the antibiotic diffuse radially outward through the agar producing and antibiotic concentration. Gradient effectiveness of susceptibility is proportional to the diameter of the inhibitory zone around the disc. Organism which grow up to the edge of the disc are resistant.

The recommended medium in this test Muller Hinton agar its PH should be between 7.2 to 7.4 and should be poured to uniform thickness of 4mm in the petri plates 25ml for certain fastidious micro organism.

Methodology

- Muller Hinton agar plates are prepared and to its pseudomonas, E.coli, Enterobacter Klebsiella, Staphylococcus, candida are swabbed separately allow this for 5minutes for the agar surface to dry before applying discs.
- To the prepared disc for antibiotics Anjanackal parpam are saturated using sterile forceps and incubated for 24 hrs at 37°C
- The plates after 24hrs incubated are observed for zone of inhibition.

Table

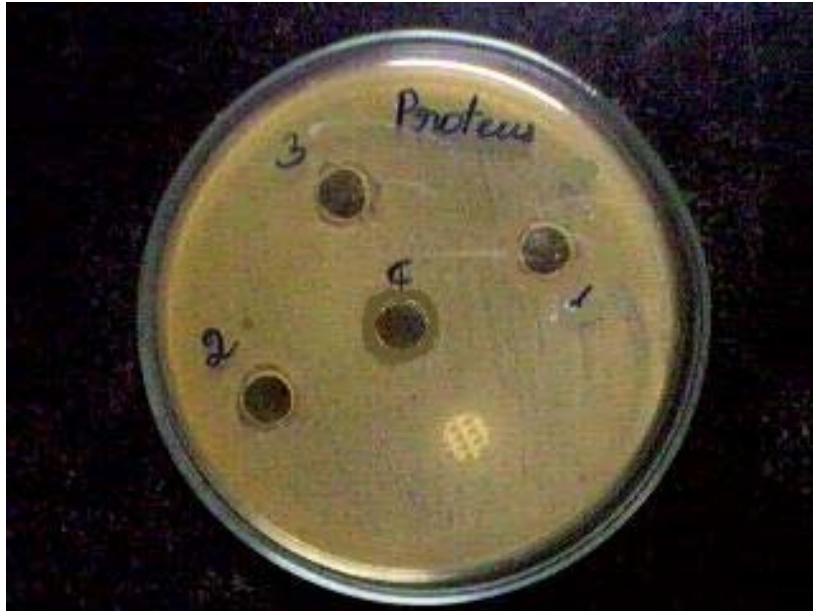
Sl No	Organism	Medium	Zone of Inhibition(mm)				
			Ampicilin	100µl	150µl	200µl	250µl
1.	Staphylococcus aureus	Muller hinton Agar	15.2	-	-	10.3	11.5
2.	Pseudomonas aeruginosa		14.5	-	-	9.3	10.3
3.	E.coli		17.7	-	-	10.5	12.3
4.	Proteus		15.5	-	-	10.3	11.5
5.	Enterobacter		15.5	-	-	9.5	10.1
6.	Candida		1305	-	-	-	-

Results :

The analysis for the antibacterial assay of Anjanackal parpam in water and ampicilin are presented in tables.

Staphylococcus Pseudomonas aeruginosa, E.coli, Proteus, Enterobacter are sensitive towards Anjanackal parpam dissolved in water and ethanol.

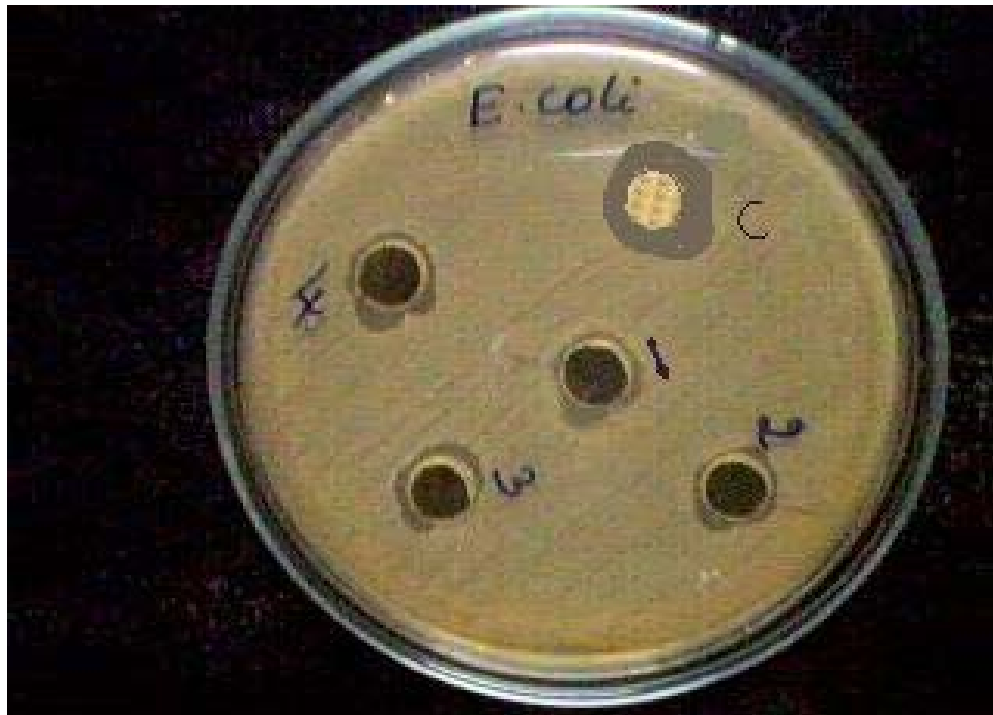
**Antimicrobial Study on Anjanackal
Parpam Sensitive against**



**Antimicrobial Study on Anjanackal
Parpam Sensitive against Pseudomonas**



**Antimicrobial Study on Anjanackal
Parpam Sensitive against E.coli**



**Antimicrobial Study on Anjanackal
Parpam Sensitive against Enterobacter**



**Antimicrobial Study on Anjanackal
Parpam Sensitive against Staphylococcus**



Quantitative Analysis

QUANTITATIVE ANALYSIS OF METALS BY ATOMIC ABSORPTION SPECTROMETER.

Principle:

Atomic absorption is the process that occurs when a ground state atom absorbs energy in the form of light of a specific wavelength and is elevated to an excited state. The amount of light energy absorbed at this wavelength will increase as the number of atoms of the selected element in the light path increase. The relationship between the amount of light absorbed and the concentration of analyses present in known standards can be used to determine unknown sample concentration by measuring the amount of light they absorb.

The absorption of light is proportional to the concentration of free atoms in the flame is given by Lambert – beer law.

$$\text{Absorbance} = \log_{10} I_0/I_t = k.c.l$$

Where,

I_0 = intensity of incident radiation emitted by the light source.

I_t =intensity of transmitted radiation. C= concentration of sample (free atoms). K= consent

l = path length

Methodology for Metal Analysis

a) Sample collection

The samples will be cleaned and dried under shade. The dried samples will be then grinded and powdered in an agate pestle and mortar. Samples will be labeled and stored in pre-cleaned polyethylene bottles for further analysis.

b) Reagents and apparatus

All the reagents such as HNO_3 and H_2O_2 Purchased from MERCK (Analytical Grade). De-ionized water will be used for all analytical work and all the glassware's, polyethylene bottles, pipette tips and other will be washed with 1% HCL, rinsed with de-ionized water before preparing standards reagents and sample.

c) Digestion of samples (Sample preparation)

Multiwave 3000 micro oven system (from Anton Paar, USA) with 16 position Teflon vessels with capping is being used here. The digestion vessels are provided with controlled pressure, temperature and release valve, Before use, all Teflon vessels are soaked with 10% HNO_3 , and 50% power for 5, 15 and 20 minutes respectively for the due warming up. The powder samples are being used without any further

treatment for sample preparation 0.2g of sample is weighed into the Teflon vessels followed by digestion mixture of HNO_3 and H_2O_2 in the ratio of 3:1 according to the nature of samples are being applied.

The resulting solution after microwave digestion is filtered through whatman # 40 filter paper(if necessary) and diluted to 5ml with de-ionized water. A sample blank containing only acid mixture is prepared at the same time. The method of standard addition generally adapted to calibrate the instrument before going for the observation of the samples.

Determination of metals

All the atomic measurements are carried out with Perkin Elmer model 400/HGA900/AS800 coupled with mercury hydride system- 15 (MHS-15) and Flame Photometer. The lamps of Hollow cathode lamp(HCL) for Fe, Cu, Mn, Zn, Ni, Co and Electrodeless Discharge Lamp(EDL) for Cd, Pb, Hg and As, analysis are used as a light source to provide specific wavelength of the elements to be determined and high purity(99.999%) Acetylene, nitrous oxide are used to provide constant thermal energy for atomization process and Argon gas used for carrier gas purging purpose for Graphite furnace.

Calibration of Instruments

More than three working standard solution of elements to be determined are prepared, covering the concentration ranges as recommended by the manufacturer of the instrument for the elements to be determined. Before the analysis of samples, the instruments will be calibrated with prepared working standard solution. The calibration curves will be obtained for concentration vs. absorbance data statically analyzed. Calibration of the instrument will be repeated periodically during operations and blank will be carried with each set of 10 samples or aspirate any one of the prepared working standard for every 10 samples to check the instrument drift and to validate analytical procedures and performance. Regent blank reading will be taken and necessary correction will be made during the calculation of concentration of various elements.

Standard Certified Reference (SRM) of National Institute of Standard and Technology(NIST) will be used for day-to-day for the evaluation of methods of analysis or test and for long-term quality assurance of measurements. A reagent blank reading will be taken and necessary corrections will be made during the calculation of concentration of various elements.

**Fe, Cu, Mn, Zn, Mg, Mo etc., metals analysis (Flame
AAA/Graphite furnace)**

After calibrating the instrument with prepared working standard, the digests liquid sample's solution to analysis of Fe, Cu, Mn, Zn, Ni, Co, by AAS flame and As by furnace with specific instrumental conditions as given by instruments manufacturer. Introduce the solution into flame, record the reading using the mean of the three reading and quantified the concentration of the metals in the given samples against the standard calibration curve obtained from concentration vs. Absorbance of the prepared know concentration on the day of the analysis.

Hg analysis by cold vapour method

After calibrating the instrument with prepared working standard, the 10ml of digests liquid sample's pipette out to specific container of mercury Hydride system analyzer followed by adding 1.5% of Hcl of 10ml as diluents for each flask and blank 3% of NaBH₄ solution in 1% of NaoH is run through the reaction flask to quartz cell with out heating against the calibration curve obtained from concentration vs absorbance of the prepared known concentration on the day of the analysis.

Reference

1. Analysis, 2000, 28, 850-854 © EDP Science, Wiley – VCH 2000
2. Analytical Sciences April 2000 Vol.16, © The Japan Society for Analytical Chemistry.
3. The Sciences, (2); 74-77 March-April 2001.

Heavy Metal Analysis of the *Anjanackal parpam* was done in the Bio-Technology Department of Sastra University using AAS(Atomic Absorption Spectrometer) and the results are given below.

Centre for Advanced Research in Indian System of Medicine(CARISM)

SASTRA UNIVERSITY, THANJAVUR 613402

ELEMENTAL ANALYSIS REPORT

Authorized Drug Testing Laboratory Approve by the Drug Controller, Govt. of Tamilnadu

Govt. Siddha Medical College, Palayamkottai

Instrument Used: Atomic Absorption Spectrometer –Model A Analyst 400/HGA900/AS800-PerkinElmer.

Units in ppm

Sample Name	Fe	Cu	Mn	Zn	Ni	Co	Cd	Pb	Hg	As	Sulphur (in %)
Anchanakkal - Raw	8.5866	0.0786	0.8086	5.0346	0.9900	0.2653	0.0786	177.00	0.6481	1.0414	17.78
Anchanakkal – Purapam	15.373	0.2486	1.5293	4.1746	1.2720	0.3613	0.2486	124.13	0.4376	0.9909	13.45
Anchanakkal – Purified	8.6333	0.2060	0.3966	2.3046	0.9947	0.2060	0.2060	132.80	0.3082	1.0190	15.92

Analyst

Dean

Inference :

From the above Heavy Metal Analysis it is concluded that

Anjanackal Parpam Contains

Fe : 15.373

Cu : 1.5293

Ni : 1.2720

Co : 0.3613

Cd : 0.2486

Pb : 12.413

Hg : 0.4376

As : 0.9909

Sulpur : 13.45%

Acute Toxicity Study

ACUTE TOXICITY STUDY

Animals used for the study

Wister Albino Rats bred in the animal house attached to the Post Graduate Pharmacological Department Govt Siddha Medical College, Palayamkottai were used.

Sex

Animals of both sex were used

Weight

Animals weighing 100 to 120 gm were selected.

Food and water

The animals were maintained with standard laboratory pellet feed and water ad-libitum.

Preparation of animals

The animals were randomly selected and were marked with picric acid on fur and kept in their cages for five days prior to dosing, to allow acclimatization to the laboratory conditions.

Separation of animals in groups

30 rats were divided into 6 groups each consisting of 5 rats. One group is kept as control group by giving water alone.

Dose levels

The following dose levels were arbitrarily fixed by presuming range of at least toxic to high toxic doses.

Ist group control

IIInd group 100mg/ 100gm body weight of the animals

IIIrd group 200mg/ 100gm body weight of the animals

IVth group 400mg/ 100gm body weight of the animals

Vth group 800mg/ 100gm body weight of the animals

VIth group 1.6gm/ 100gm body weight of the animals

Route of administration

The drug was administered orally.

Test dose preparation

The preparation was done in such a way as 1ml of suspension contained 100mg of test drug and administered as given above in each group. The drug was administered once on the day of the experiments and thereafter 24 hr parameters were used .

Experimental setup

All the six groups were fasted for overnight prior to dosing. Following the period of fasting the animals were weighed and the test substance was administered through “**Rat oral intubation tube**”

After the administration of the drug food was withheld for one to two hours.

Observation

The following parameters were noted

Central effects

1. Stimulation

- Hyper activity
- Piloerection
- Twitching
- Rigidity
- Irritability
- Jumping
- Clonic convulsion
- Tonic convulsion

2. Depression

- Ptosis
- Sedation
- Sleep
- Loss of traction
- Loss of Pinna reflex.

- Ataxia
- Catatonia
- Loss of Muscle tone
- Analgesia

III Autonomic Effect

- Straub's tail flicking
- Laboured respiration
- Cyanosis
- Blanching
- Reddening
- Abnormal secretion

At the end of 24 hrs the number of animals dead in each group was noted and the approximate LD₅₀ was determined the animal were morphologically examined for any toxic symptoms.

Results:

The drug Anjanackal Parpum did not produce any mortality upto 1.6 gm/animal . So it was inferred that the drug is safe upto 1.6gm/ animal.

CLINICAL ASSESSMENT

A clinical trial on hypoglycaemic activity of Anjanackal parpam in treating Madhumegam parpam was carried out at the Govt. Siddha Medical College Hospital, Palayamkottai. This study was carried out under the proper guidance of teaching staffs of the post graduate Gunapadam Department.

35 cases with clinical signs and symptoms of Madhumegam of both sexes with age ranging from 44 to 80 years are selected and treated in the Post Graduate Department of Gunapadam, Govt. Siddha Medical College, Palayamkottai. 30 cases were treated as out patients and 5 cases were treated as inpatients.

The patients were selected as Madhumegam according to the following including and excluding criteria.

Criteria For case selection:

Inclusion Criteria

1. Polyuria
2. Polyphagia
3. Polydipsia
4. Nocturia
5. Tiredness and general weakness

6. Giddiness
7. Pruritus
8. Numbness and Burning sensation in the soles
9. Increased Blood Sugar levels
 - Fasting more than 120% mg
 - Post prandial more than 160 mg%
10. Presence of urine sugar
11. Positive Family History

Exclusion Criteria

1. Early onset of diabetes Mellitus (juvenile DM. IDDM)
2. Iatrogenic Diabetes – Corticosteroids and thiazide diuretics
3. Patients having hyperglycaemia due to hormonal disorder like
Acromegaly Cushing's syndrome, Hyper thyroidism etc.
4. Patients having diabetes with coronary heart disease and dehydrated
with dry skin.
5. Patient with clinical or laboratory evidence of preexisting
Hepatobiliary disease, chronic active hepatitis, HBV infection
cholecystitis and Gall stone disease.
6. Pancreatic Diabetes- Pancreatic carcinoma, Haemochromatosis,
Diabetic ketoacidosis

Clinical Pathological Examination

Blood Test:

Fasting blood sugar

Postprandial blood sugar

Urea

Serum Cholesterol

WBC / TC DC

ESR

Hb were done

Urine Analysis:

Albumin

Sugar : Fasting and post prandial

Deposits

Drug:

The patients were orally administered **Anjanackal parpam** 130mg with ghee twice a day after meals.

Pattern of Study

Biochemical analysis of blood sugar (Fasting and Post Prandial) are carried out before and after treatment. In the case of out-patient urine sugar(Post prandial) were estimated every week and fasting and post prandial Blood sugar estimation was done on every month. In case of

inpatients urine sugar was done on every five days. Patients were strictly instructed to follow the instructions given below.

1. Not to take any other anti-diabetic drug of any other system, whether in indigenous or modern, when they are on trail.
2. Incidental ailments are treated with appropriate Siddha Medicine.
3. Advised to attend outpatients department every week for the collection of Medicine, Urine Examination and the blood sugar estimation for every fifteen days.
4. Advised to follow the diatetic regimen given to them on registration under this clinical trial.

Tabulations showing age and sex.

S. No	Age Group	No of Patients	Sex	
			Male	Female
1.	42-44	4	2	2
2.	45-49	3	-	3
3.	50-54	9	4	5
4.	55-59	3	1	2
5.	60-64	10	4	6
6.	65-69	3	3	-
7.	70-75	3	3	-
	Total	35	17	18

1. Name: Sankaran Age/Sex: 60/M O.P. No: 19913 From: 19-3-08 To- 30-04-08 No. of days treated: 43

Drug : Anjanackal Parpam 130mg BD with Ghee Diagnosis: MADHUMEGAM

Complaints of	INVESTIGATIONS									
	Before treatment					After treatment				
Body pain	Wt. 65 kg					Wt. 65kg				
Tiredness	B.P.: 130/80 mm of Hg					B.P.: 130/80 mm of Hg				
Numbness in both soles	Blood :			Urine:		Blood :			Urine:	
Excessive excretion of Urine	Blood Sugar		TC- 9600 Cells/cumm		Alb -Nil		Blood Sugar		TC- 9100 Cells/cumm	
Thirst	Fasting 202 mg %		DC- P- 56 %		Sug -		Fasting - 170 mg%		DC- P- 58 %	
History of NIDDM since 2 years	Post Prandial - 292mg%		L- 32 %		F - +		Post Prandial - 212 mg%		L- 38 %	
	Serum Cholesterol - 186mg%		E- 2 %		PP - ++		Serum Cholesterol - -mg%		E- 4 %	
	Blood Urea - 22 mg %		ESR- ½ hr - 12 mm		Dep- NAD		Blood Urea - 20 mg%		ESR- ½ hr - 6 mm	
			1hr - 20 mm						1hr - 15 mm	
			Hb- 70 %						Hb- 78 %	
	Response : Fair Response									
No of Weeks after Urine Sugar-PP	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th
	++	++	++	+	+	+	+	-	-	-

2. Name: Kasthuri Age/Sex: 62/F O.P. No: 15152 From: - 27-2-08- To- 10-4-08 No. of days treated: 42

Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE Diagnosis: MADHUMEGAM

Complaints of	INVESTIGATIONS									
	Before treatment					After treatment				
Body pain	Wt. 52 kg					Wt. 55kg				
Tiredness	B.P.:120 / 80 mm of Hg					B.P.: 120 /80 mm of Hg				
Numbness in both soles	Blood :			Urine:		Blood :			Urine:	
Excessive excretion of Urine	Blood Sugar		TC- 9100Cells/cumm		Alb -Nil		Blood Sugar		TC- 9400 Cells/cumm	
Thirst	Fasting 200mg %		DC- P- 62 %		Sug -		Fasting - 168mg%		DC- P- 60 %	
History of NIDDM since 2 years	Post Prandial - 303mg%		L- 36 %		F - ++		Post Prandial - 254 mg%		L- 36%	
	Serum Cholesterol - 189mg%		E- 2%		PP -+++		Serum Cholesterol - 194mg%		E- 4%	
	Blood Urea - 28mg %		ESR- ½ hr - 5 mm		Dep- NAD		Blood Urea - 25 mg%		ESR- ½ hr - 10 mm	
			1hr - 10mm						1hr - 20 mm	
			Hb- 68 %						Hb- 71 %	
	Response : Poor Response									
No of Weeks after Urine Sugar-PP	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th
	+++	+++	+++	+++	++	++	++	++	-	-

Good response– Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

3. Name: Subulekshimi		Age/Sex: 57 /F		O.P. No: 19965		From: - 19-3-08 -		To- 30- 4-08		No. of days treated: 43	
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 60 kg					Wt.62 kg				
		B.P.: 110 /70 mm of Hg					B.P.: 110 / 80 mm of Hg				
		Blood :					Urine:				
Blood Sugar		TC- 9000Cells/cumm		Alb -Nil		Blood Sugar		TC- 9200Cells/cumm		Alb - Nil	
Fasting 192 mg %		DC- P- 48 %		Sug -		Fasting - 128 mg%		DC- P- 58%		Sug -	
Post Prandial -332 mg%		L- 44%		F - +		Post Prandial - 283 mg%		L- 38%		F - Nil	
Serum Cholesterol -228 mg%		E- 8%		PP -++		Serum Cholesterol - 215mg%		E- 4%		PP - ++	
Blood Urea - 32mg %		ESR- ½ hr - 16 mm		Dep- NAD		Blood Urea - 30mg%		ESR- ½ hr -10 mm		Dep- NAD	
		1hr - 38mm						1hr - 18mm			
		Hb- 70%						Hb- 68%			
Response : Poor Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++	++	+	+	+	-	-	-	-	-

4. Name: Chellaiah		Age/Sex: 70 /M		O.P. No: 18312		From: -12-3-08		To- 23-4-08		No. of days treated: 43	
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 70 kg					Wt. 70kg				
		B.P.: 160 / 100 mm of Hg					B.P.: 160 /90 mm of Hg				
		Blood :					Urine:				
Blood Sugar		TC- 9600 Cells/cumm		Alb -Nil		Blood Sugar		TC- 9200Cells/cumm		Alb - Nil	
Fasting 130 mg %		DC- P- 70 %		Sug -		Fasting - 72mg%		DC- P- 72%		Sug -	
Post Prandial -239 mg%		L- 28%		F - Nil		Post Prandial - 146 mg%		L- 25 %		F - Nil	
Serum Cholesterol - 182mg%		E- 2%		PP - ++		Serum Cholesterol -163 mg%		E- 3%		PP -Nil	
Blood Urea - 15mg %		ESR- ½ hr - 15 mm		Dep- NAD		Blood Urea - 22mg%		ESR- ½ hr -9 mm		Dep- NAD	
		1hr - 30mm						1hr - 15 mm			
		Hb- 72%						Hb- 74%			
Response : Good Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++	++	++	+	+	Nil	-	-	-	-

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

5. Name: Thabulath Nisha		Age/Sex: 42/F		O.P. No: 19963		From: 19-3-08		To- 30-4-08		No. of days treated: 43	
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Malaise Excessive excretion of Urine Thirst History of NIDDM since 5 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 54 kg					Wt.56 kg				
		B.P.: 120 / 80 mm of Hg					B.P.: 120/ 80 mm of Hg				
		Blood :					Urine:		Blood :		
Blood Sugar		TC- 8600 Cells/cumm		Alb -Nil		Blood Sugar		TC- 9100Cells/cumm		Alb - Nil	
Fasting 130mg %		DC- P- 70 %		Sug -		Fasting - 90 mg%		DC- P- 64%		Sug -	
Post Prandial -211 mg%		L- 28%		F - Nil		Post Prandial - 162 mg%		L- 34%		F - Nil	
Serum Cholesterol -178 mg%		E- 2%		PP - ++		Serum Cholesterol - 176mg%		E- 2%		PP -Nil	
Blood Urea - 25 mg %		ESR- ½ hr -10 mm		Dep- NAD		Blood Urea - 28mg%		ESR- ½ hr - 4 mm		Dep- NAD	
		1hr - 20mm						1hr - 8mm			
		Hb- 70%						Hb- 68%			
Response : Good Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++	++	++	+	+	Nil	Nil	-	-	-

6. Name: Somasundaram		Age/Sex: 58 /M		O.P. No:18447		From: -12-3-08-		To- 30-4-08		No. of days treated: 50	
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM					
Complaints of Shoulder joint pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 63 kg					Wt.65 kg				
		B.P.: 140 /80 mm of Hg					B.P.: 140 /80 mm of Hg				
		Blood :					Urine:		Blood :		
Blood Sugar		TC- 9600Cells/cumm		Alb -Nil		Blood Sugar		TC- 9200 Cells/cumm		Alb - Nil	
Fasting 140 mg %		DC- P- 54%		Sug -		Fasting - 82 mg%		DC- P- 58%		Sug -	
Post Prandial -259 mg%		L- 40%		F -Nil		Post Prandial - 179 mg%		L- 38%		F - Nil	
Serum Cholesterol -176 mg%		E- 6%		PP -++		Serum Cholesterol - 176mg%		E- 4%		PP -Nil	
Blood Urea - 19mg %		ESR- ½ hr - 4 mm		Dep- NAD		Blood Urea - 19mg%		ESR- ½ hr -3 mm		Dep- NAD	
		1hr - 10mm						1hr - 9mm			
		Hb- 71 %						Hb- 74%			
Response : Good Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++	++	++	+	+	+	Nil	Nil	-	-

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

5. Name: Aayisha Baseera		Age/Sex: 48/F		O.P. No: 18422		From: - 12-3-08		To- 7-5-08		No. of days treated: 57	
Drug : ANJANACKAL PARPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst Giddiness History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 70 kg					Wt. 72kg				
		B.P.: 140/ 90 mm of Hg					B.P.: 140/ 80 mm of Hg				
		Blood :		Urine:		Blood :			Urine:		
Blood Sugar Fasting 180 mg % Post Prandial –262 mg% Serum Cholesterol –218 mg% Blood Urea – 25 mg %		TC-8600 Cells/cumm DC- P-64 % L- 34% E- 2% ESR- ½ hr – 6 mm 1hr – 13mm Hb- 74%		Alb –Nil Sug – F - Nil PP - +++ Dep- NAD		Blood Sugar Fasting -118 mg% Post Prandial – 168 mg% Serum Cholesterol –212 mg% Blood Urea – 20mg%			TC- 9100Cells/cumm DC- P- 68% L- 28% E- 4% ESR- ½ hr –8 mm 1hr – 15 mm Hb- 78%		Alb – Nil Sug – F - Nil PP - Nil Dep- NAD
Response : Good Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		+++	+++	+++	++	++	+	+	Nil	-	-

8. Name: Rajamoni		Age/Sex: 67 /M		O.P. No: 19935		From: -19-3-08		To- 24-4-08		No. of days treated: 37	
Drug : ANJANACKAL PARPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM					
Complaints of Tiredness Giddiness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 3 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 65 kg					Wt. 68kg				
		B.P.: 140 /90 mm of Hg					B.P.: 140/ 90 mm of Hg				
		Blood :		Urine:		Blood :			Urine:		
Blood Sugar Fasting 130mg % Post Prandial – 212mg% Serum Cholesterol – 251mg% Blood Urea – 29mg %		TC- 8600 Cells/cumm DC- P- 56 % L- 38% E- 6% ESR- ½ hr –10 mm 1hr – 22mm Hb- 72 %		Alb –Nil Sug – F - Nil PP - ++ Dep- NAD		Blood Sugar Fasting - 79mg% Post Prandial – 176 mg% Serum Cholesterol – 154mg% Blood Urea – 18mg%			TC- 9000Cells/cumm DC- P- 60% L- 35% E- 5% ESR- ½ hr – 8 mm 1hr – 15 mm Hb- 74%		Alb – Nil Sug – F - Nil PP - Nil Dep- NAD
Response Good Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++	++	++	+	+	Nil	Nil	-	-	-

Good response– Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

9. Name: Gopalakrishnan		Age/Sex: 65 /M		O.P. No:18389		From: - 12-3-08		To- 30-4-08		No. of days treated: 50		
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM						
Complaints of Body pain Tiredness Excessive excretion of Urine Thirst History of NIDDM since 6 Months		INVESTIGATIONS										
		Before treatment					After treatment					
		Wt. 68 kg					Wt.70 kg					
		B.P.: 130 / 80 mm of Hg					B.P.: 130 / 80 mm of Hg					
		Blood :		Urine:			Blood :				Urine:	
Blood Sugar Fasting 140mg % Post Prandial – 208mg% Serum Cholesterol –180 mg% Blood Urea – 42mg %		TC- 9000 Cells/cumm DC- P- 66 % L- 30% E- 4% ESR- ½ hr –5 mm 1hr – 10 mm Hb- 71 %			Alb –Nil Sug – F - Nil PP - + Dep- NAD			Blood Sugar Fasting - 112 mg% Post Prandial –142 mg% Serum Cholesterol –203 mg% Blood Urea – 26mg%		TC- 8500 Cells/cumm DC- P- 60 % L- 36% E- 4% ESR- ½ hr –7 mm 1hr – 15 mm Hb- 72%		Alb – Nil Sug – F - Nil PP - Nil Dep- NAD
Response : Good Response												
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
		+	+	+	Nil	Nil	Nil	Nil	Nil	-	-	

10. Name: Chellammal		Age/Sex: 60 /F		O.P. No: 18283		From: 12-3-08		To- 30-4-08		No. of days treated: 50		
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM						
Complaints of Joint pain Tiredness Excessive excretion of Urine Thirst History of NIDDM since 8 months		INVESTIGATIONS										
		Before treatment					After treatment					
		Wt. 63 kg					Wt.65 kg					
		B.P.: 120 / 80 mm of Hg					B.P.: 120 / 80 mm of Hg					
		Blood :		Urine:			Blood :				Urine:	
Blood Sugar Fasting 123 mg % Post Prandial –202 mg% Serum Cholesterol –225 mg% Blood Urea – 25mg %		TC- 9000 Cells/cumm DC- P- 60 % L- 36% E- 4% ESR- ½ hr –40 mm 1hr – 80mm Hb- 72%			Alb –Nil Sug – F - Nil PP - + Dep- NAD			Blood Sugar Fasting - 80mg% Post Prandial – 162 mg% Serum Cholesterol – 261mg% Blood Urea – 25mg%		TC- 9600Cells/cumm DC- P- 65% L- 30% E- 5% ESR- ½ hr –2 mm 1hr – 5 mm Hb- 70%		Alb – Nil Sug – F - Nil PP - Nil Dep- NAD
Response : Good Response												
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
		+	+	+	Nil	Nil	Nil	Nil	-	-	-	

Good response– Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

11. Name: Vijaya		Age/Sex: 62/F		O.P. No:18438		From: 12-3-08-		To- 7-5-08		No. of days treated: 57	
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst Itching in the genitalia History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 55 kg					Wt.58 kg				
		B.P.:110 / 70 mm of Hg					B.P.: 120 / 70 mm of Hg				
		Blood :					Urine:		Blood :		
Blood Sugar		TC-9400 Cells/cumm		Alb -Nil		Blood Sugar		TC- 9600 Cells/cumm		Alb - Nil	
Fasting 212mg %		DC- P- 64 %		Sug -		Fasting - 92mg%		DC- P- 64 %		Sug -	
Post Prandial -284 mg%		L- 34%		F - +		Post Prandial -208 mg%		L- 32%		F - Nil	
Serum Cholesterol -222 mg%		E- 2%		PP - ++		Serum Cholesterol -268 mg%		E- 4%		PP -+	
Blood Urea - 33mg %		ESR- ½ hr - 6 mm		Dep- few puscells		Blood Urea - 24 mg%		ESR- ½ hr - 15 mm		Dep- 1-2 puscells	
		1hr - 12 mm						1hr - 32mm			
		Hb- 70%						Hb- 68 %			
Response : Fair Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++	++	++	+	+	+	Nil	Nil	Nil	-

12. Name: Madavaii		Age/Sex: 41 /F		O.P. No:16861		From: 5-3-08		To- 23-4-08		No. of days treated: 49	
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 56 kg					Wt. 57kg				
		B.P.: 120 / 80 mm of Hg					B.P.: 120 / 80 mm of Hg				
		Blood :					Urine:		Blood :		
Blood Sugar		TC- 9100Cells/cumm		Alb -Nil		Blood Sugar		TC-9200 Cells/cumm		Alb - Nil	
Fasting 156 mg %		DC- P- 60 %		Sug -		Fasting - 101 mg%		DC- P-62 %		Sug -	
Post Prandial -260 mg%		L- 38%		F - Nil		Post Prandial -158 mg%		L- 34%		F - Nil	
Serum Cholesterol -170 mg%		E- 2%		PP - ++		Serum Cholesterol -166 mg%		E- 4 %		PP - Nil	
Blood Urea - 22mg %		ESR- ½ hr -15 mm		Dep- NAD		Blood Urea - 18 mg%		ESR- ½ hr - 12 mm		Dep-1-2 puscells	
		1hr - 30mm						1hr - 25 mm			
		Hb- 74%						Hb- 78 %			
Response : Good Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++	++	+	+	+	Nil	Nil	-	-	-

Good response– Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

13. Name: Theivani		Age/Sex: 53 /F		O.P. No:16845		From: 5-3-08		To-12-04-08		No. of days treated: 39		
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM						
Complaints of Body pain Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 10 years		INVESTIGATIONS										
		Before treatment					After treatment					
		Wt. 52 kg					Wt. 55kg					
		B.P.: 110/ 70 mm of Hg					B.P.: 120 / 80 mm of Hg					
		Blood :					Urine:					
Blood Sugar		TC- 9000Cells/cumm			Alb -Nil		Blood Sugar			TC- 9400 Cells/cumm		Alb - Nil
Fasting 198 mg %		DC- P- 58 %			Sug -		Fasting -130 mg%			DC- P- 60 %		Sug -
Post Prandial -296 mg%		L- 34%			F - +		Post Prandial - 212 mg%			L- 36%		F - Nil
Serum Cholesterol -132 mg%		E- 8%			PP - +++		Serum Cholesterol -142 mg%			E- 4%		PP - ++
Blood Urea - 21mg %		ESR- ½ hr - 4 mm			Dep- NAD		Blood Urea - 25mg%			ESR- ½ hr - 4 mm		Dep- NAD
		1hr - 8mm								1hr - 10 mm		
		Hb- 76%								Hb- 76%		
Response : Poor Response												
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
		+++	+++	+++	++	++	++	++	++	-	-	

14. Name: Shunmugam		Age/Sex: 63/M		O.P. No:16737		From: 5-3-08		To- 28-4-08		No. of days treated: 55		
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM						
Complaints of Body pain Tiredness Excessive excretion of Urine Thirst History of NIDDM since 6 months		INVESTIGATIONS										
		Before treatment					After treatment					
		Wt. 65 kg					Wt.65 kg					
		B.P.:130 /80 mm of Hg					B.P.: 130 / 80 mm of Hg					
		Blood :					Urine:					
Blood Sugar		TC- 8800 Cells/cumm			Alb -Nil		Blood Sugar			TC-8900 Cells/cumm		Alb - Nil
Fasting 142 mg %		DC- P- 48 %			Sug -		Fasting - 92mg%			DC- P-48 %		Sug -
Post Prandial - 246mg%		L- 42 %			F -Nil		Post Prandial - 170 mg%			L- 48%		F - Nil
Serum Cholesterol - 248mg%		E- 4 %			PP -+++		Serum Cholesterol - 238mg%			E- 4%		PP -Nil
Blood Urea - 21mg %		ESR- ½ hr - 7 mm			Dep- NAD		Blood Urea - 22 mg%			ESR- ½ hr - 6 mm		Dep- NAD
		1hr - 15mm								1hr - 12mm		
		Hb- 70 %								Hb- 75%		
Response : Good Response												
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
		+++	+++	++	+	+	+	Nil	Nil	-	-	

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

15. Name: Paramasivan		Age/Sex: 63/M		O.P. No: 16828		From: 5-3-08		To- 15-4-08		No. of days treated: 42			
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM							
Complaints of Body pain Tiredness Excessive excretion of Urine Thirst History of NIDDM since 1 year		INVESTIGATIONS											
		Before treatment					After treatment						
		Wt. 56 kg					Wt.60 kg						
		B.P.: 130 /80 mm of Hg					B.P.: 130 /80 mm of Hg						
		Blood :					Urine:						
Blood Sugar		TC-9000 Cells/cumm			Alb -Nil		Blood Sugar			TC- 8600Cells/cumm		Alb - Nil	
Fasting 172mg %		DC- P- 60 %			Sug -		Fasting - 110mg%			DC- P- 56%		Sug -	
Post Prandial - 286mg%		L- 36%			F - Nil		Post Prandial - 198 mg%			L- 38%		F - Nil	
Serum Cholesterol - 178mg%		E- 4%			PP - +++		Serum Cholesterol -160 mg%			E- 6%		PP - +	
Blood Urea - 26 mg %		ESR- ½ hr - 5 mm			Dep- NAD		Blood Urea - 32mg%			ESR- ½ hr - 10 mm		Dep- NAD	
		1hr - 10 mm								1hr - 20mm			
		Hb- 73 %								Hb- 76%			
Response : Fair Response													
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
		+++	+++	++	++	+	+	-	-	-	-		

16. Name: Jina		Age/Sex: 54 /M		O.P. No: 16811		From: 5-3-08		To- 9-4-08		No. of days treated: 36			
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM							
Complaints of Body pain Tiredness Giddiness Malaise Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS											
		Before treatment					After treatment						
		Wt. 67 kg					Wt.68 kg						
		B.P.: 140 /80 mm of Hg					B.P.: / mm of Hg						
		Blood :					Urine:						
Blood Sugar		TC- 9000 Cells/cumm			Alb -Nil		Blood Sugar			TC- 9400Cells/cumm		Alb - Nil	
Fasting 160 mg %		DC- P- 60%			Sug -		Fasting - 98mg%			DC- P- 70%		Sug -	
Post Prandial - 232mg%		L- 34%			F - Nil		Post Prandial - 156 mg%			L- 28%		F - Nil	
Serum Cholesterol - 188mg%		E- 6%			PP - ++		Serum Cholesterol -185 mg%			E- 2%		PP -Nil	
Blood Urea - 33mg %		ESR- ½ hr - 8 mm			Dep- NAD		Blood Urea - 35 mg%			ESR- ½ hr -4 mm		Dep- NAD	
		1hr - 18mm								1hr - 10 mm			
		Hb- 71 %								Hb- 68 %			
Response : Good Response													
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
		++	++	+	+	Nil	Nil	-	-	-	-		

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

17. Name: Krishnan		Age/Sex: 53/M		O.P. No: 18357		From: 12-3-08		To- 30-4-08		No. of days treated: 50	
Drug : ANJANACKAL PARPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM					
Complaints of Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 1 ½ years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 53 kg					Wt. 55kg				
		B.P.: 130 /80 mm of Hg					B.P.:130 /80 mm of Hg				
		Blood :					Urine:		Blood :		
Blood Sugar		TC- 7800Cells/cumm		Alb –Nil		Blood Sugar		TC- 9000Cells/cumm		Alb – Nil	
Fasting 130mg %		DC- P- 56%		Sug –		Fasting - 88mg%		DC- P- 64%		Sug –	
Post Prandial –223 mg%		L- 40%		F - Nil		Post Prandial –124 mg%		L- 32%		F - Nil	
Serum Cholesterol –190 mg%		E- 4%		PP - ++		Serum Cholesterol –188 mg%		E- 4%		PP -Nil	
Blood Urea – 21mg %		ESR- ½ hr – 4 mm		Dep- NAD		Blood Urea – 25 mg%		ESR- ½ hr – 5 mm		Dep- NAD	
		1hr – 8mm						1hr – 10mm			
		Hb- 78%						Hb-77 %			
		Response : Good Response									
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++	++	++	+	+	Nil	Nil	Nil	-	-

18. Name: Sudalai Muthu		Age/Sex:70/M		O.P. No: 16776		From: 5-3-08-		To- 16-4-08		No. of days treated: 43	
Drug : ANJANACKAL PARPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt58 kg					Wt.60 kg				
		B.P.: 130 / 80 mm of Hg					B.P.: 130/ 80 mm of Hg				
		Blood :					Urine:		Blood :		
Blood Sugar		TC- 8800 Cells/cumm		Alb –Nil		Blood Sugar		TC- 9000Cells/cumm		Alb – Nil	
Fasting 140 mg %		DC- P- 55%		Sug –		Fasting - 98 mg%		DC- P- 60%		Sug –	
Post Prandial – 265mg%		L- 40%		F - Nil		Post Prandial – 176 mg%		L- 36%		F - Nil	
Serum Cholesterol –167 mg%		E- 5%		PP - ++		Serum Cholesterol – 160mg%		E- 6 %		PP -Nil	
Blood Urea – 30mg %		ESR- ½ hr – 7 mm		Dep- NAD		Blood Urea – 24mg%		ESR- ½ hr – 10 mm		Dep- NAD	
		1hr – 15mm						1hr – 20 mm			
		Hb- 70%						Hb- 78 %			
		Response : Good Response									
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++	++	+	+	+	Nil	Nil	-	-	-

Good response– Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

19. Name: Mohamed Gous		Age/Sex: 67/M		O.P. No:15339		From: 28-2-08		To- 9-4-08		No. of days treated: 43			
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM							
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine History of NIDDM since 2 years		INVESTIGATIONS											
		Before treatment					After treatment						
		Wt. 70 kg					Wt. 70kg						
		B.P.: 130 / 80 mm of Hg					B.P.: 120 /80 mm of Hg						
		Blood :					Urine:		Blood :			Urine:	
Blood Sugar		TC- 9600 Cells/cumm			Alb -Nil		Blood Sugar		TC- 9800 Cells/cumm			Alb - Nil	
Fasting 156 mg %		DC- P- 64 %			Sug -		Fasting - 110 mg%		DC- P- 60%			Sug -	
Post Prandial - 262mg%		L- 32%			F - Nil		Post Prandial - 178 mg%		L- 36 %			F - Nil	
Serum Cholesterol -180 mg%		E- 4%			PP - ++		Serum Cholesterol - mg%		E- 4 %			PP -Nil	
Blood Urea - 20 mg %		ESR- ½ hr - 10 mm			Dep- NAD		Blood Urea - mg%		ESR- ½ hr - 5 mm			Dep- NAD	
		1hr - 20mm							1hr - 10 mm				
		Hb- 63%							Hb- 66 %				
Response : Good Response													
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
		++	++	+	+	Nil	Nil	-	-	-	-		

20.Name: Mary		Age/Sex: 50 /F		O.P. No: 15098		From: 27-2-08		To- 16-4-08		No. of days treated: 50			
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM							
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS											
		Before treatment					After treatment						
		Wt. 62 kg					Wt.63 kg						
		B.P.: 120/ 80 mm of Hg					B.P.: 120 /80 mm of Hg						
		Blood :					Urine:		Blood :			Urine:	
Blood Sugar		TC- 8900 Cells/cumm			Alb -Nil		Blood Sugar		TC- 8700Cells/cumm			Alb - Nil	
Fasting 148 mg %		DC- P- 59%			Sug -		Fasting - 102 mg%		DC- P- 60%			Sug -	
Post Prandial -236 mg%		L- 37%			F -Nil		Post Prandial -152 mg%		L- 39%			F - Nil	
Serum Cholesterol -252 mg%		E- 4%			PP -+++		Serum Cholesterol - 248mg%		E- 1%			PP -Nil	
Blood Urea - 17mg %		ESR- ½ hr -7 mm			Dep- 1-2 puscells		Blood Urea - 21mg%		ESR- ½ hr -4 mm			Dep- NAD	
		1hr - 17 mm							1hr - 8 mm				
		Hb- 72%							Hb- 64%				
Response : Good Response													
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
		+++	+++	++	+	+	Nil	Nil	-	-	-		

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

21. Name: Valliammal		Age/Sex: 50 /F		O.P. No: 1552		From: 27-2-08		To- 16-4-08		No. of days treated: 54	
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Excessive excretion of Urine Thirst History of NIDDM since 6 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 72 kg					Wt. 72kg				
		B.P.: 130 /80 mm of Hg					B.P.: 130 /80 mm of Hg				
		Blood :		Urine:		Blood :			Urine:		
Blood Sugar Fasting 160 mg % Post Prandial –252 mg% Serum Cholesterol –184 mg% Blood Urea – 20mg %		TC- 9200 Cells/cumm DC- P- 70 % L- 28% E- 2% ESR- ½ hr – 7 mm 1hr – 14mm Hb- 72%		Alb –Nil Sug – F - Nil PP - +++ Dep- NAD		Blood Sugar Fasting - 110mg% Post Prandial – 172 mg% Serum Cholesterol – 182mg% Blood Urea – 22mg%			TC- 7900Cells/cumm DC- P- 60% L- 30% E- 10% ESR- ½ hr – 2 mm 1hr – 5mm Hb- 76%		Alb – Nil Sug – F - Nil PP - Nil Dep- NAD
Response : Good Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		+++	+++	++	++	+	Nil	Nil	-	-	-

22. Name: Sundaram		Age/Sex: 54 /M		O.P. No: 15157		From: 27-2-08		To- 20-4-05		No. of days treated: 52	
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 72 kg					Wt.70 kg				
		B.P.: 120 / 80 mm of Hg					B.P.: 138 /80 mm of Hg				
		Blood :		Urine:		Blood :			Urine:		
Blood Sugar Fasting 156 mg % Post Prandial – 270mg% Serum Cholesterol – 186mg% Blood Urea – 22mg %		TC- 9400 Cells/cumm DC- P- 70 % L- 28% E- 2% ESR- ½ hr – 7 mm 1hr – 15 mm Hb- 17%		Alb –Nil Sug – F - Nil PP -+++ Dep- NAD		Blood Sugar Fasting - 92 mg% Post Prandial – 176 mg% Serum Cholesterol –182 mg% Blood Urea – 22mg%			TC- 7800Cells/cumm DC- P- 62% L- 28 % E- 10% ESR- ½ hr – 3 mm 1hr – 6mm Hb- 76%		Alb – Nil Sug – F - Nil PP -Nil Dep- NAD
Response : Good Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		+++	+++	++	++	+	+	Nil	-	-	-

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

23. Name: Balau Deva Shagayam		Age/Sex: 39 /M		O.P. No: 15100		From: 27-2-08		To-9-4-08		No. of days treated: 42			
Drug : ANJANACKAL PARPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM							
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine History of NIDDM since 2 years	INVESTIGATIONS												
	Before treatment					Wt. 65 kg			After treatment			Wt.68 kg	
	B.P.: 140 /80 mm of Hg								B.P.: 130 / 80 mm of Hg				
	Blood :					Urine:			Blood :			Urine:	
	Blood Sugar Fasting 153 mg % Post Prandial –202 mg% Serum Cholesterol –179 mg% Blood Urea – 17mg %		TC- 10200 Cells/cumm DC- P- 68 % L- 30% E- 2% ESR- ½ hr –6 mm 1hr – 12 mm Hb- 88%		Alb –Nil Sug – F - Nil PP - ++ Dep- Few puscells		Blood Sugar Fasting - 110 mg% Post Prandial – 156 mg% Serum Cholesterol – mg% Blood Urea – mg%		TC- 10000Cells/cumm DC- P- 66% L- 32% E- 2% ESR- ½ hr –5 mm 1hr – 10 mm Hb- 88%		Alb – Nil Sug – F - Nil PP -Nil Dep- NAD		
Response : Good Response													
No of Weeks after	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th			
Urine Sugar-PP	++	++	+	+	Nil	Nil	-	-	-	-			

24. Name: Nabeesath		Age/Sex: 45 /F		O.P. No: 15079		From: 27-2-08		To- 14-4-08		No. of days treated: 51			
Drug : ANJANACKAL PARPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM							
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 12 years	INVESTIGATIONS												
	Before treatment					Wt. 68 kg			After treatment			Wt.65 kg	
	B.P.: 110 /70 mm of Hg								B.P.: 120 /80 mm of Hg				
	Blood :					Urine:			Blood :			Urine:	
	Blood Sugar Fasting 321 mg % Post Prandial –428 mg% Serum Cholesterol –224 mg% Blood Urea – 29mg %		TC- 9200 Cells/cumm DC- P- 56 % L- 40% E- 4% ESR- ½ hr – 8 mm 1hr – 20mm Hb- 72%		Alb –Nil Sug – F - ++ PP -++++ Dep- NAD		Blood Sugar Fasting - 192 mg% Post Prandial – 314 mg% Serum Cholesterol – 210mg% Blood Urea – 28mg%		TC-9600 Cells/cumm DC- P- 56 % L- 38 % E- 6% ESR- ½ hr –7 mm 1hr – 15 mm Hb- 75%		Alb – Nil Sug – F - + PP - ++ Dep- NAD		
Response : Poor Response													
No of Weeks after	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th			
Urine Sugar-PP	+++	++++	+++	+++	+++	++	++	++	-	-			

Good response– Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

25 Name: Murugan		Age/Sex: 44/M		O.P. No: 15143		From: 27-2-08		To- 16-4-08		No. of days treated: 51	
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM					
Complaints of Tiredness Giddiness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 3 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 58 kg					Wt. 60kg				
		B.P.: 130 / 90 mm of Hg					B.P.: 130 / 80 mm of Hg				
		Blood :					Urine:				
Blood Sugar		TC- 9100 Cells/cumm			Alb -Nil		Blood Sugar			TC- 9200 Cells/cumm	
Fasting 184 mg %		DC- P- 60 %			Sug -		Fasting - 140 mg%			DC- P- 60 %	
Post Prandial - 327mg%		L- %36			F -+		Post Prandial - 268 mg%			L- 36%	
Serum Cholesterol - 193mg%		E- 4%			PP - + + + +		Serum Cholesterol - 197mg%			E- 4 %	
Blood Urea - 18mg %		ESR- ½ hr - 3 mm			Dep- 1-2 puscells		Blood Urea - 20 mg%			ESR- ½ hr - 4 mm	
		1hr - 6mm								1hr - 8mm	
		Hb- 76%								Hb- 76%	
Response : Fair Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++++	++++	+++	+++	++	++	++	++	-	-

26. Name: Rajakumari		Age/Sex: 50/F		O.P. No:15057		From: 27-2-08		To- 16-4-08		No. of days treated: 51	
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 52 kg					Wt55. kg				
		B.P.: 130 / 80 mm of Hg					B.P.: 130 / 80 mm of Hg				
		Blood :					Urine:				
Blood Sugar		TC- 9600 Cells/cumm			Alb -Nil		Blood Sugar			TC- 9200 Cells/cumm	
Fasting 140 mg %		DC- P- 50 %			Sug -		Fasting - 92 mg%			DC- P- 64 %	
Post Prandial - 28mg%		L- 48%			F - nil		Post Prandial - 178 mg%			L- 34 %	
Serum Cholesterol -194 mg%		E- 2%			PP -++		Serum Cholesterol - 190mg%			E- 2%	
Blood Urea - 13mg %		ESR- ½ hr - 12 mm			Dep- 1-2 epithelial cells		Blood Urea - 30mg%			ESR- ½ hr - 7 mm	
		1hr - 28mm								1hr - 14mm	
		Hb- 70%								Hb- 66%	
Response : Good Response											
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++	++	+	+	+	Nil	Nil	Nil	-	-

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

27. Name: Rajammal		Age/Sex: 62/F		O.P. No: 15044		From: 27-2-08		To- 16-4-08		No. of days treated: 51			
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM							
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 6 Months		INVESTIGATIONS											
		Before treatment					After treatment						
		Wt. 58 kg					Wt. 60kg						
		B.P.: 120 /80 mm of Hg					B.P.: 120 / 80 mm of Hg						
		Blood :					Urine:		Blood :			Urine:	
Blood Sugar		TC-9200 Cells/cumm			Alb -Nil		Blood Sugar		TC-8200 Cells/cumm			Alb - Nil	
Fasting -156 mg %		DC- P- 60 %			Sug -		Fasting - 121mg%		DC- P-62 %			Sug -	
Post Prandial -272 mg%		L- 36%			F - Nil		Post Prandial - 140 mg%		L- 30%			F - Nil	
Serum Cholesterol -185 mg%		E- 4%			PP - +++		Serum Cholesterol -192 mg%		E- 4%			PP -Nil	
Blood Urea - 14mg %		ESR- ½ hr - 8 mm			Dep- NAD		Blood Urea - 25mg%		ESR- ½ hr -7 mm			Dep- NAD	
		1hr - 15 mm							1hr - 15 mm				
		Hb- 71%							Hb- 70%				
Response : Good Response													
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
		+++	+++	++	++	+	+	Nil	Nil	-	-		

28. Name: Sankramma		Age/Sex: 47 /F		O.P. No: 2257		From: 5-8-08		To- 16-4-08		No. of days treated: 43			
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM							
Complaints of Body pain Tiredness Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS											
		Before treatment					After treatment						
		Wt. kg					Wt. kg						
		B.P.: 130 /90 mm of Hg					B.P.: 130 / 80 mm of Hg						
		Blood :					Urine:		Blood :			Urine:	
Blood Sugar		TC- 9800 Cells/cumm			Alb -Nil		Blood Sugar		TC-8500 Cells/cumm			Alb - Nil	
Fasting 149 mg %		DC- P- 64 %			Sug -		Fasting - 130 mg%		DC- P- 58 %			Sug -	
Post Prandial - 272mg%		L- 34%			F - Nil		Post Prandial -216 mg%		L- 38%			F - Nil	
Serum Cholesterol - 200mg%		E- 2%			PP - ++		Serum Cholesterol -196 mg%		E- 4%			PP - +	
Blood Urea - 17mg %		ESR- ½ hr -10 mm			Dep- Few epithelial cells		Blood Urea - 22mg%		ESR- ½ hr - 7 mm			Dep- NAD	
		1hr - 20 mm							1hr - 14mm				
		Hb- 67 %							Hb- 71%				
Response : Fair Response													
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
		++	++	++	++	++	++	+	-	-	-		

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

29. Name: Ku merashan		Age/Sex: 52 /M		O.P. No: 15019		From: 27-2-08		To- 4-4-08		No. of days treated: 41	
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 2 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 68 kg					Wt.70 kg				
		B.P.: 130 /80 mm of Hg					B.P.: 130 /80 mm of Hg				
		Blood :					Urine:		Blood :		
Blood Sugar		TC- 9200 Cells/cumm		Alb -Nil		Blood Sugar		TC-9900 Cells/cumm		Alb - Nil	
Fasting 196 mg %		DC- P- 56 %		Sug -		Fasting - 130 mg%		DC- P- 67 %		Sug -	
Post Prandial - 319mg%		L- 30%		F - +		Post Prandial - 232 mg%		L- 30%		F - Nil	
Serum Cholesterol -212 mg%		E- 4%		PP -+++		Serum Cholesterol -206 mg%		E- 3%		PP - ++	
Blood Urea - 14mg %		ESR- ½ hr -2 mm		Dep- 1-2 Puscells		Blood Urea - 21mg%		ESR- ½ hr - 5 mm		Dep- NAD	
		1hr - 4 mm						1hr - 10mm			
		Hb- 71 %						Hb- 76%			
		Response : Fair Response									
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		+++	+++	++	++	+	+	-	-	-	-

30. Name: Paul Raj Nadar		Age/Sex:72 /M		O.P. No: 15046		From: 27-2-07		To- 16-4-07		No. of days treated: 51	
Drug : ANJANACKAL PAMPAM 130MG BD WITH GHEE						Diagnosis: MADHUMEGAM					
Complaints of Body pain Tiredness Giddiness Numbness in both soles Excessive excretion of Urine Thirst History of NIDDM since 5 years		INVESTIGATIONS									
		Before treatment					After treatment				
		Wt. 70 kg					Wt.70 kg				
		B.P.: 150 /100 mm of Hg					B.P.: 150 /90 mm of Hg				
		Blood :					Urine:		Blood :		
Blood Sugar		TC- 10000 Cells/cumm		Alb -Nil		Blood Sugar		TC- 9000 Cells/cumm		Alb - Nil	
Fasting 160 mg %		DC- P- 60%		Sug -		Fasting - 92 mg%		DC- P- 58 %		Sug -	
Post Prandial -258 mg%		L- 30%		F - Nil		Post Prandial - 180 mg%		L- 38%		F - Nil	
Serum Cholesterol -141 mg%		E- 10%		PP - ++		Serum Cholesterol -130 mg%		E- 4%		PP -Nil	
Blood Urea - 26mg %		ESR- ½ hr - 10 mm		Dep- NAD		Blood Urea - 29mg%		ESR- ½ hr - 5 mm		Dep- NAD	
		1hr - 22mm						1hr - 10 mm			
		Hb- 74 %						Hb- 78%			
		Response : Good Response									
No of Weeks after Urine Sugar-PP		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		++	++	++	+	+	Nil	Nil	Nil	-	-

Good response – Reduction of fasting and post prandial blood sugar and glycosuria

Fair response – Significant reduction but not to normal level of fasting

Poor response – Insignificant

31.Name: Ponnuthai Age/Sex: 57/F I.P. No: 746 DOA: 20-03-08 DOD- 03-04-08 No. of days treated -15

Drug : ANJANACKAL PARPAM 130MG BD WITH GHEE Diagnosis: MADHUMEGAM

Complaints of	INVESTIGATIONS								
	Before treatment Wt. 62kg				After treatment Wt. 63kg				Response
Body pain	B.P.: 150/90mm of Hg				B.P.: 140/90mm of Hg				
Numbness in both soles	Blood :			Urine:	Blood :			Urine:	
Excessive Excretion of Urine	Blood Sugar	TC- 9200 Cells/cumm	Alb – Nil		Blood Sugar	TC- 8500 Cells/cumm	Alb – Nil	Response	
Tiredness, Giddiness	Fasting -160mg%	DC- P- 60 % L -36 %	Sug – F - +		Fasting – 118mg%	DC- P- 66 % L- 30 %	Sug – F - Nil		
Loss of weight	Post Prandial -258 mg%	E- 4 %	PP - +++		Post Prandial -172mg%	E- 4 %	PP - +		
History of NIDDM since 2 years	Serum Cholesterol -196mg %	ESR- ½ hr – 9 mm	Dep- NAD		Serum Cholesterol -192mg%	ESR- ½ hr – 10 mm	Dep- NAD		
	Blood Urea – 18 mg%	1hr – 18 mm			Blood Urea- 22mg%	1hr – 20 mm			
		Hb - 72 %				Hb- 71 %			

Progress	On admission	5 th day	10 th day	15 th day	20 th day	25 th day	30 th day	35 th day	40 th day
Body Pain	++	++	++	+	-	-	-	-	-
Numbness in the soles	++	++	++	+	-	-	-	-	-
Giddiness	++	+	+	-	-	-	-	-	-
Fluid intake/day	2500ml	2400ml	2000ml	2300ml	-	-	-	-	-
Urine output/day	3700ml	3500ml	3400ml	3400ml	-	-	-	-	-
Urine Sugar /P.P	+++	+++	++	+	-	-	-	-	-

+ - Mild ++ - Moderate +++ severe

Good response – Reduction of Fasting and Post Prandial Blood Sugar and Glycosuria

Fair response - Significant reduction but not to normal level of Fasting and Post Prandial Blood Sugar and Glycosuria

Poor response - insignificant reduction but not to normal level of fasting and Post prandial Blood Sugar and Glycosuria.

32.Name: Ramalekshimi	Age/Sex:61/F	I.P. No: 662	DOA:11-3-08	DOD-27-3-08	No. of days treated 17
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Drug : ANJANACKAL PARPAM 130MG BD WITH GHEE	Diagnosis: MADHUMEGAM
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Complaints of	INVESTIGATIONS						Response
	Before treatment			After treatment			
Body pain	Wt. 60 kg			Wt. 62kg			Response
Excessive Excretion of Urine	B.P.: 130 /80 mm of Hg			B.P.: 130 / 80 mm of Hg			
Tiredness	Blood :		Urine:	Blood :		Urine:	Good Response
Loss of weight	Blood Sugar	TC- 9000Cells/cumm	Alb – Nil	Blood Sugar	TC-8200 Cells/cumm	Alb –Nil	
History of NIDDM since 2 years	Fasting - 140mg%	DC- P- 55%	Sug –	Fasting - 114mg%	DC- P- 58 %	Sug –	
	Post Prandial -192mg %	L- 40%	F - Nil	Post Prandial 156- mg %	L - 38%	F - Nil	
	Serum Cholesterol -168mg %	E - 5%	PP - ++	Serum Cholesterol --mg%	E - 4 %	PP – Nil	
	Blood Urea - 22mg%	ESR- ½ hr –6 mm	Dep- NAD	Blood Urea- - mg%	ESR- ½ hr – 15 mm	Dep- NAD	
		1hr – 12 mm			1hr – 30 mm		
		Hb- 69 %			Hb- 71 %		

Progress	On admission	5 th day	10 th day	15 th day	20 th day	25 th day	30 th day	35 th day	40 th day
Body Pain	+	+	-	-	-	-	-	-	-
Numbness in the soles	-	-	-	-	-	-	-	-	-
Giddiness	-	-	-	-	-	-	-	-	-
Fluid intake/day	2500ml	2500ml	2400ml	2200ml	2000ml	-	-	-	-
Urine output/day	3700ml	3600ml	3500ml	3200ml	3200ml	-	-	-	-
Urine Sugar /P.P	++	++	+	+	-	-	-	-	-

+ - Mild ++ - Moderate +++ severe

Good response – Reduction of Fasting and Post Prandial Blood Sugar and Glycosuria

Fair response - Significant reduction but not to normal level of Fasting and Post Prandial Blood Sugar and Glycosuria

Poor response - insignificant reduction but not to normal level of fasting and Post prandial Blood Sugar and Glycosuria.

33.Name: Samynathan	Age/Sex: 52/M	I.P. No: 636	DOA:7-3-08	DOD-11-4-08	No. of days treated 36
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Drug : ANJANACKAL PARPAM 130MG BD WITH GHEE	Diagnosis: MADHUMEGAM
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Complaints of	INVESTIGATIONS						Response
	Before treatment			After treatment			
	Wt. 78 kg			Wt.80 kg			
Body pain	B.P.: 150/ 90 mm of Hg			B.P.:150 /90 mm of Hg			Response
Numbness in both soles	Blood :		Urine:	Blood :		Urine:	
Excessive Excretion of Urine	Blood Sugar	TC- 9000Cells/cumm	Alb – Nil	Blood Sugar	TC- 9000Cells/cumm	Alb –Nil	PoorResponse
Tiredness	Fasting - 202 mg%	DC- P- 60 %	Sug –	Fasting -188 mg%	DC- P- 59 %	Sug –	
Giddiness	Post Prandial 343-mg %	L- 36%	F - +	Post Prandial -268 mg %	L - 38%	F - Nil	
History of NIDDM since 10 years	Serum Cholesterol -205mg %	E - 4%	PP -+++	Serum Cholesterol --mg%	ESR- ½ hr – 7 mm	PP – ++	
	Blood Urea - 30 mg%	ESR- ½ hr – 10 mm	Dep- Few puscells	Blood Urea- - mg%	1hr – 14mm	Dep- NAD	
		1hr – 20 mm			Hb- 78%		
		Hb- 74 %					

Progress	On admission	5 th day	10 th day	15 th day	20 th day	25 th day	30 th day	35 th day	40 th day
Body Pain	+	-	-	-	-	-	-	-	-
Numbness in the soles	+++	++	++	++	++	+	+	+	-
Giddiness	++	++	+	+	+	+	-	-	-
Fluid intake/day	3000ml	3000ml	2800ml	2400ml	2100ml	2200ml	2800ml	2800ml	-
Urine output/day	3800ml	3800ml	3500ml	3400ml	3200ml	3400ml	3400ml	3400ml	-
Urine Sugar /P.P	+++	+++	+++	+++	++	++	++	++	-

+- Mild ++ - Moderate +++ severe

Good response – Reduction of Fasting and Post Prandial Blood Sugar and Glycosuria

Fair response - Significant reduction but not to normal level of Fasting and Post Prandial Blood Sugar and Glycosuria

Poor response - insignificant reduction but not to normal level of fasting and Post prandial Blood Sugar and Glycosuria.

34.Name: Karthiga	Age/Sex:65/F	I.P. No: 932	DOA:10-4-08	DOD-24-4-08	No. of days treated 15
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Drug : ANJANACKAL PARPAM 130MG BD WITH GHEE	Diagnosis: MADHUMEGAM
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Complaints of	INVESTIGATIONS						Response
	Before treatment			After treatment			
Body pain	Wt. 65kg			Wt.68 kg			Response
Numbness in both soles	B.P.: 120 /80 mm of Hg			B.P.: 120 /80 mm of Hg			
Excessive Excretion of Urine Tiredness Loss of weight History of NIDDM since 3 years	Blood :		Urine:	Blood :		Urine:	Good Response
	Blood Sugar	TC- 9000Cells/cumm	Alb – Nil	Blood Sugar	TC- 8500Cells/cumm	Alb –Nil	
	Fasting - 197mg%	DC- P- 58%	Sug –	Fasting - 120 mg%	DC- P- 60 %	Sug –	
	Post Prandial -288mg %	L- 34%	F - +	Post Prandial -150 mg %	L - 34%	F - Nil	
	Serum Cholesterol -186mg %	E - 8%	PP ++	Serum Cholesterol -186mg%	E - 6%	PP – Nil	
Blood Urea - 20mg%	ESR- ½ hr –7 mm	Dep- NAD	Blood Urea- 20mg%	ESR- ½ hr – 6mm	Dep- NAD		
		1hr – 15 mm		1hr – 12mm			
	Hb- 72 %			Hb- 74 %			

Progress	On admission	5 th day	10 th day	15 th day	20 th day	25 th day	30 th day	35 th day	40 th day
Body Pain	++	+	-	-	-	-	-	-	-
Numbness in the soles	++	++	+	-	-	-	-	-	-
Giddiness	-	-	-	-	-	-	-	-	-
Fluid intake/day	2200ml	2300ml	2100ml	1900ml	-	-	-	-	-
Urine output/day	3700ml	3500ml	3100ml	2800ml	-	-	-	-	-
Urine Sugar /P.P	++	++	+	-	-	-	-	-	-

+- Mild ++ - Moderate +++ severe

Good response – Reduction of Fasting and Post Prandial Blood Sugar and Glycosuria

Fair response - Significant reduction but not to normal level of Fasting and Post Prandial Blood Sugar and Glycosuria

Poor response - insignificant reduction but not to normal level of fasting and Post prandial Blood Sugar and Glycosuria.

35.Name: Muniyammal	Age/Sex: 65/F	I.P. No: 909	DOA:11-4-08	DOD-24-4-08	No. of days treated 14
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Drug : ANJANACKAL PARPAM 130MG BD WITH GHEE	Diagnosis: MADHUMEGAM
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Complaints of	INVESTIGATIONS						Response
	Before treatment			After treatment			
Body pain	Wt. 58 kg			Wt. 60kg			Response
Numbness in both soles	B.P.: 150 /100 mm of Hg			B.P.:150 /90 mm of Hg			
Excessive Excretion of Urine Tiredness Giddiness Joint pain History of NIDDM since 2 years	Blood :		Urine:	Blood :		Urine:	Good Response
	Blood Sugar	TC-9000Cells/cumm	Alb – Nil	Blood Sugar	TC- 9200Cells/cumm	Alb –Nil	
	Fasting - 164 mg%	DC- P- 64 %	Sug –	Fasting - 110 mg%	DC- P-62 %	Sug –	
	Post Prandial -222mg %	L- 32%	F - Nil	Post Prandial - 162mg %	L - 34%	F - Nil	
	Serum Cholesterol -183mg %	E - 4%	PP - ++	Serum Cholesterol -181mg%	E - 4%	PP – Nil	
Blood Urea - 21 mg%	ESR- ½ hr – 8 mm	Dep- 1-2 epithelial cells	Blood Urea- 22mg%	ESR- ½ hr – 8 mm	Dep- NAD		
	1hr – 18mm			1hr – 16mm			
	Hb- 74 %			Hb- 76 %			

Progress	On admission	5 th day	10 th day	15 th day	20 th day	25 th day	30 th day	35 th day	40 th day
Body Pain	+	-	-	-	-	-	-	-	-
Numbness in the soles	+	+	-	-	-	-	-	-	-
Giddiness	+	+	+	-	-	-	-	-	-
Fluid intake/day	3200ml	3000ml	2600ml	2400ml	-	-	-	-	-
Urine output/day	3700ml	3500ml	3500ml	3200ml	-	-	-	-	-
Urine Sugar /P.P	++	++	+	+	-	-	-	-	-

+- Mild ++ - Moderate +++ severe

Good response – Reduction of Fasting and Post Prandial Blood Sugar and Glycosuria

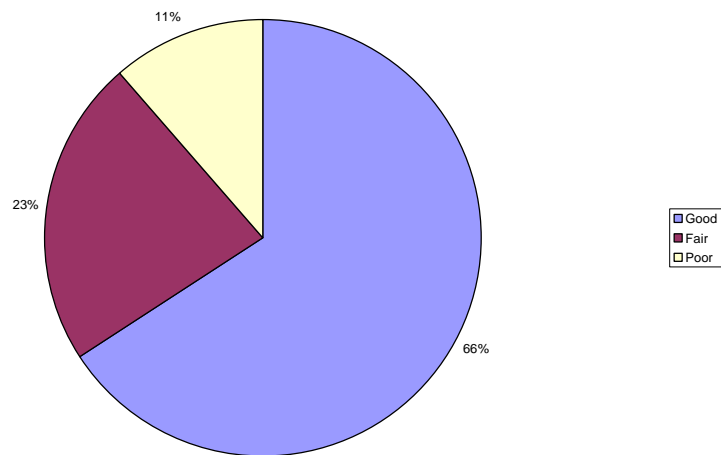
Fair response - Significant reduction but not to normal level of Fasting and Post Prandial Blood Sugar and Glycosuria

Poor response - insignificant reduction but not to normal level of fasting and Post prandial Blood Sugar and Glycosuria.

Tabulation showing grade and percentage

S. No	Grade	No of Patients	Percentage
1.	Good	23	65.8%
2.	Fair	8	22.8%
3.	Poor	4	11.4%
	Total	35	100%

Graph showing Grade and Percentage



In the clinical trail done for 35 patients good result is obtained for 65.8% obtained fair results is 22.8%, poor results is 11.4% of cases.

Diet:

Diet is mentioned at the annexure page No:129

Bio-statistical Analysis

BIO-STATISTICAL ANALYSIS

The study finding and results were analysed based on percentage mean and S.D. The above statistics were interpreted by students 't' test and 'z' test. The package used for analysis and interpretation used in SPSS version 13.0

Results and Discussions

Another group of 35 persons of Madhumagam subjects were treated as clinical trial by administering Anjanackal parpam. The results of fasting and post prandial blood sugar were measured and recorded. The study subjects were compared with there age and sex.

Table-1
Age and sex wise classification of Anjanackal parpam study subjects.

Sl. No	Sex	N	Age		't'	Significance	95'1± C.mean of the population
			Mean	S.D			
1.	Male	17	59.00	9.41	1.610	P>0.05	
2.	Female	18	54.23	7.91			
	Total	35	56.57	8.87	-	-	53.5 to 59.6 years

In the above table, there is difference between the mean ages of male and female. The mean ages are 59 ± 7.91 and 56.57 ± 8.87 of male

and female respectively. The difference is not statistically significant since 't' = 1.61 and p>0.05. The mean age of the total sample is 56.57 ± 8.87 and the same in the population of Madhumagam subject will be 53.52 ± 59.6.

Blood Sugar

The effectiveness of the Anjanackal parpam in controlling and managing Madhumagam disease is analysed by measuring the blood glucose level of fasting and PP before and after administration of the drug. The results are enumerated in the below table.

Table-2
Fasting and PP blood glucose level of Madhumagam subjects before and after administration of Anjanackal parpam(mg%)

Sl. No	Blood Glucose Level	n	Before		After		Mean difference	't'	Significance
			Mean	S.D	Mean	S.D			
1.	Fasting	42	166.23	36.9	113.69	29.26	52.57	13.447	P<0.000
2.	Pp	42	262.6	50.01	185.89	45.63	76.71	18.424	P<0.000

The drug Anjanackal parpam is an effective drug in controlling and managing blood glucose level of madhumagam clinical trials. The results of the above table support the above statement of the effectiveness of the drug. The mean blood glucose level of before and after treatment during fasting scored as 166.23± 36. 9 and 113,69 ±

29.26. The mean reduction during the fasting is 52.57 mg%. The above reduction is the effect of the drug, similarly, during the mean blood glucose level is before and after treatment are 262.6 ± 50.01 and 185.89 ± 45.63 respectively. The difference of mean is 76.7% . That is the mean reduction during the PP is 76.7 mg% . The above determinents are statistically highly significant.

Discussion

DISCUSSION

In this dissertation work **Anjanackal** (Pbs) is tried to test its efficacy in treating **madhumegam** (Diabetes mellitus)

According to Siddha principles in the disease **Madhumegam** the basic abnormality is derangement of **Kapha Kutram** followed by pitha kutram and vatha kutram reflecting the clinical signs and symptoms. Kapha is the main kutram to be controlled.

Anjanackal possesses bitter taste(**Kaippu**) and belongs to **veppa veriyam**.

“மெய்நீர்க் கசிவையுந் தடியையுந் தடியும்
ஊண்சலம் மலஞ்சலம் நிணசலம் என்பினுள்
மன்னிய முனைச் சுரப்பிகள் யாவையும்
வறட்டும் முலைப்பால் மாசறும் அறிவை
வளர்ச்சும் மெளிதாம் செரிக்கக் கரகரப்
புளதாம் உளங் கொடு கைப்பை
அளவோடு கொண்டால் அடையும் பயனே”

சித்த மருத்துவாங்கச் சுருக்கம் பக்கம் 23

Kaippu suvai controls the excessive fluid secretion from the body. It also controls the tissue fluid & faces and urine going outside excessively.

The Veppa veeriyam drugs having qualities to control vatha kutram, Kapha Kutram which manifests in the body as giddiness, polyphagia, malaise, sweating, Tassitude and indigestion. The above symptoms are also present in Madhumeagam patients.

The vehicle ghee also possess the following actions.

“நெய்யுண வுண்டவை நேர்வுறச் செய்து மேன்

மேற்படியையுந் திண்ணிய மேரு வெனச் செய்யும்.”

Sufficient amount of ghee is given along with food it and give strength to the body.

குணபாடம் தாதுசீவ வகுப்பு III ம் பதிப்பு பக்கம் 531

Ghee also reduces the signs and symptoms of thirst and Pramegam as follows

தாகமுழ லைசுட்கம் வாந்தி பித்தம் வாயு – பிர

மேகம் வயிற்றொரிவு விக்கல் ழல்- மாசாங்

குன்மம் வறட்சி குடற் புரட்ட லஸ்தி சுட்கஞ்

சென் மூலம் போக்கு நிஐறத் துப்பு

-குணபாடம் தாதுசீவ வகுப்பு பக்கம் 531

The above Gunapadam explanation of the drug reveals the hypoglycaenic action which was supported by experimental results was supported by experimental results conducted in pharmacological and biochemical studies.

- A brief description of the drug in botanical, chemical, Gunapadam aspects were discussed.
- Biochemical analysis shows the drug Anjanackal parpam has calcium chloride, zinc, ferrous iron.
- The presence of calcium improves the physical strength of the skeletal tissues thus the analgesic complaint like the body pain, shoulder pain knee joint pain are reduced in most of the patient in the clinical trial moreover calcium is responsible for release of the hormone insulin from the endocrine glands, thus it helps, reduction in the blood sugar level.
- It also contains chloride which maintain the acid base equilibrium and fluid balances and osmotic pressure, thus the increased urine output is diminished in many patients.
- The presence of ferrous iron improved the Haemoglobin level in most of the patients.
- Antomicrobial studies of Anjanackal parpam shows sensitive for organisms namely Proteus. Stapylo coccus , Enterobacter, Pseudomonas and E.coli
- **Quantitative analysis** of Anjanackal parpam by Atomic absorption spectrometer was done in three stages namely **Raw**

drug, purified drug and end product in Anjanackal Parpam and their reports are tabulated.

- **Toxicity studies** shows, no toxins related to pathological changes on albino rats. So the drug reveals safe for short term therapies
- According to Siddha literature Anjanackal is best for eye diseases.
- According to Siddha literature “ Siroratha vaithya poosnam” page no 10 sirukeerai has the property of removing mineral toxicity.
- It is believed that the drug Anjanackal parpam not only treats madhumegam, but also improves the general health condition.
- In most of the cases isomnia, peripheral neuritis, itching in the genital area, body pain, malaise are observed. This is due to the chronicity of the disease and dietary changes. This fact was observed by the author during the clinical trials, but after the treatment the above symptoms are reduced in most of the patients.
- In clinical studies patients who were diagnosed as per the inclusion criteria were given the drug in a dose of 130mg twice a day for 20-40 days depends upon the signs and symptoms as by laboratory investigation.

Summary

SUMMARY

- The drug Anjanackal parpam was selected for this dissertation taken from the text **Mega roga nirvana pothini ennum Neerilivu roga sichichai.**
- The ingredients of Anjanackal parpam are Anjanackal processed in sirukeerai and the vehicle is ghee. The prepared drug was subjected to various studies.
- The review of literature about the drug and their significance in siddha Medicine were done.
- Information about the drug was collected from various sources like abstract, journals and internet files.
- Bio-chemical analysis of the drug reveals the presence of calcium, chloride, zinc ferrous iron and their biological significance are being discussed.
- Pharmacological analysis shows that the drug possess significant hypoglycaemic effect.
- Antimicrobial studies of Anjanackal parpam shows sensitives for organisms namely Proteus, Staphylococcus, Enterobacter, Ecoli and Pseudomonas.

- **Quantitative analysis** of Anjanackal parpam by Atomic absorption spectrometer was done in three stages namely **Raw drug, purified drug** and **end product** in Anjanackal Parpam and their reports are tabulated.
- **Toxicity studies** shows, no toxins related to pathological changes on albino rats. So the drug reveals safe for short term therapies
- In the clinical trails out of 35 patient 23 patients showed good response 8 Patient shows fair response and 4 patient shows poor response.
- No Adverse reaction were noted, during the treatment.

Conclusion

Conclusion

It is concluded that the drug Anjanackal parpam has notable hypoglycaemic effect without causing any adverse effects in the clinical trail.

Annexure

ANNEXURE

DIABETIC DIETETIC REGIMEN

The siddha system lays a great importance on the observation of rules regarding diet in everyday life. Because the siddha system has rightly realized th

at the basic factor of the body is food.

“மருந்தே உணவு உணவே மருந்து”

“மாறுபாடில்லாத உண்டி மறுத்துண்ணில்

ஊறுபாடில் லையுயிர்க்கு

- திருக்குறள்

கோதுமையின் நற்குணந்தான் கோதிற் பலங்கொடுக்கத்

.....பிரமேகத்தை கெடுக்கும் உத்தமமே என்றே உரை

- பதார்த்த குண சிந்தாமணி

As over intake or consuming unbalanced and incomplete diet is considered to be the prime causative factor for upsetting the tridosa balance leading to manifestations of various ailments.

So diet regimen is very important for **Madhumegam**.

The diet should be adjusted to bring the weight of diabetics. (up or down) to the optimum weight and to maintain it there.

- Obese diabetics must be encourage to loss weight. On the other hand, lean and thin diabetics should receive a weight gaining diet.
- Incase of mild diabetes with obese diet control alone is restricted.
- For sweetening agent, patient may use sorbitol fructose in the diet
- Ideal caloric requirement is 20 calories per kg of body weight.
- Protein requirement is 1gm/kg of body weight for adults, 2gm - 3gm per kg of body weight for children.
- Carbohydrate requirement is 2gm per kg of body weight to prevent ketoacidosis.
- In practice 40% of the total calorie should come from carbohydrate.
- Many patients require 1800-2500 kilo calories..

The regulated diabetic dietetic regimen is always essential for any form of anti diabetic therapy.

நீரழிவு நோய்க்கான உணவுமுறைகள்

காலை 6 மணி:

காபி அல்லது டீ - 120 மி.லி(சர்க்கரை இல்லாமல்)

காலை 8 மணி

சப்பாத்தி அல்லது பூரி 2-3 உருளைக்கிழங்கு இல்லாமல்

(காய்கறிகளுடன்)

அல்லது

1 ½ கப் உப்புமா அல்லது 1 ½ கப் பொங்கல் ½ கப் சாம்பார்
அல்லது

கோதுமை தோசை அல்லது கேப்பை தோசை 2-3 இத்துடன்
தேவைப்பட்டால் காபி அல்லது 120. மி.லி சர்க்கரை இல்லாமல்
சேர்க்கலாம்.

வாரத்தில் இரு நாட்கள்

3 இட்லி அல்லது 2 தோசை (கண்டிப்பாக தேங்காய் சட்னி
கூடாது)

கொத்தமல்லி சட்னி சாம்பார் அல்லது உருளைக்கிழங்கு இல்லாத
குருமா சேர்க்கலாம்

காலை 11 மணி:

வெண்ணெய் நீக்கிய மோர் 100-200 மி.லி/ காய்கறி சூப் அல்லது
எலுமிச்சை சாறு சேர்க்கலாம்

மதியம் 1 மணி

சாதம் 2 கப் சாம்பார் ½ கப் இத்துடன் அதிக எண்ணை
இல்லாமல் காய்கறிகள் / அப்பளம் / கீரை தாராளமாகச் சேர்க்கலாம்
வெள்ளரிக்காய் அல்லது தக்காளி பச்சடி சேர்க்கலாம்.

அசைவ உணவு உண்பவருக்கு :

இத்துடன் ஒரு பெரிய துண்டு மீன் அல்லது மூன்று கோழி
இறைச்சித் துண்டுகள் அல்லது ஒரு முட்டை வெள்ளைக்கரு
சேர்க்கலாம்.

மாலை 5 மணி:

காபி அல்லது 120 மி.லி

1 உளுந்து வடை அல்லது வெஜிடேபிள் சமோசா அல்லது தட்டைப்பயறு/ கொண்டைக்கடலை இவற்றில் ஒன்று.

இரவு 8 மணி:

கோதுமை சப்பாத்தி 2 அல்லது தோசை 3 வேக வைத்த காய்கறிகள் அல்லது சாதம் 2 கப் / சாம்பார் ½ கப் / காய்கறி கூட்டு அல்லது கேப்பைக் கூழ் 2-3 கப் (1 கப் - 200 மி.லி)

இரவு 10 மணி:

ஆடை எடுக்கப்பட்ட பால் 120 மி.லி (சர்க்கரை இல்லாமல்) 1 சிறிய வாழைப்பழம் சேர்க்கலாம்

Advice :

- To take tea or coffee without sugar
- Directions of sugar intake in the form of refined carbohydrates should be totally avoided.
- To omit sweet vegetables & most of the underground vegetable.
- Total quantity of food must be restricted.
- Green leafy vegetables & other low calorie foods can be taken in unlimited quantities
- Addition of vegetable proteins in the form of Bengal gram, green gram.
- Daily regular exercise like walking.

உணவில் சேர்க்க வேண்டிய காய்கறிகள்

கசப்பு துவர்ப்பு சுவையுள்ள காய்கறிகள் நலம் / பாகல் பிஞ்சு/
புடலங்காய் / வெண்டக்காய் / செளசௌ/ காலிபிளவர் / கத்தரி/
வாழைத்தண்டு/ வெள்ளரிக்காய் / தர்பூசணி/ கேரட்/ முட்டைகோஸ் /
சுண்டைவற்றல் இவற்றை சேர்த்துக் கொள்ளவும்.

உணவில் சேர்க்க வேண்டிய கீரைவகைகள்:

பொதுவாக எல்லா கீரை வகைகளையும் சேர்த்துக் கொள்ளவும்.

உணவில் கணிசமான அளவு பூண்டு/ வெங்காயம்/ மஞ்சள்/ கடுகு/
ஏலம்/ வெந்தயம்/ சீரகம்/ வாழைப்பூ/ கறிவேப்பிலை/ மல்லி/ காயம்
இவைகளை சேர்க்க வேண்டும். காய்கறிகளை குறைந்த அளவு
எண்ணெயில் வேக வைக்க வேண்டும்

Regimen for Madhumegam Patients

Primary Prevention:

1. Maintenance of normal body weight
2. Healthy nutritional practice
3. Periodic health checking
4. Avoid alcohol and smoking
5. Regular physical exercise such as brisk walking, jogging etc.

Secondary Prevention:

It means control of Madhumegam and its complication by maintaining.

1. Normal blood glucose levels
2. Ideal body weight and blood pressure
3. Normal blood cholesterol and fats

All diabetic persons should regularly undergo their blood glucose examination, kidney function test, eye checkup and foot examination.

Diet and Diabetes:

- Proper diet is vital in the treatment of diabetes.
- 30% of the disease can be controlled with proper diet
- Diet for a Madhumegam patient need not be completely different from a non diabetic person.

Foods that should be avoided:-

- Sugar in any form (Sweets, ice cream chocolate, candies etc)
- Fried items like puri and chat items
- High carbohydrate foods like potatoes sweets, carrot, beetroot etc.
- Fruits high in sugar content like banana, sapota, grapes, mango etc.

Help of Exercise in Madhumegam

- Lowers blood glucose level quickly
- Improves the body's ability to use insulin

- Reduces insulin requirement
- Reduces the risk of heart diseases

Yoga Treatment in Madhumegam

- Dhanur Aasanam
- Pujanga Aasanam
- Chakara Aasanam
- Eaha Padma Aasanam
- Mayur Aasanam
- Mathsaya Aasanam
- Padma Aasanam
- Sarvanga Aasanam
- Vill Aasanam
- Patchi Motha Aasanam

All these Aasanas should be practiced daily and regularly which can be of immense value to patients of Madhumegam. All these Aasanas activate the pancreatic cells and have a curative value.

Out of 35 cases administered with *Anjanackal parpam* cases showed good response of signs and symptom.

For the IP cases at the time of discharge all the patient were strictly advised to attend the out patient department for follow up studies.

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