

A REVIEW OF TREATMENT REGIMEN OF MADHUMEGA NOI (DIABETES MELLITUS) IN SIDDHA AND AYURVEDA CLASSICAL TEXTBOOKS

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ABSTRACT

The prevalence of non-communicable disease is on the rise because of fast paced lifestyle work related stress etc. People all over the world are in search of harmless and safe remedies to their chronic diseases. An India is becoming the Diabetic capital of the world traditional Indian system of medicine particularly Siddha and Ayurveda provide a safe economical (affordable) and effective management for Madhumegam(Diabetes mellitus). The information obtained is from published literatures about the treatment regimen of Madhumegam is discussed. This work is aimed towards finding out and documenting such similarities and difference for the benefit of the patients. While going through Siddha and Ayurveda literatures one can find many similarities in the pathogenesis, line of treatment, medical and dietary management.

KEYWORDS: Madhumegam, Siddha, Ayurveda.

INTRODUCTION

Diabetes mellitus is a multifactorial disease, its leads to several complications. It is a heterogeneous metabolic disorder characterized by altered carbohydrate, lipid and protein metabolism resulting from either insulin insufficiency or insulin dysfunction in spite of greater achievement made in understanding and handling this disease, the graph of Diabetic complications and mortality are increasing day by day. India is the diabetic capital country of

the world with 41 million people affected with the disease. Even though numerous drugs targeted for carbohydrate hydrolyzing enzymes (pseudosaccharides), release insulin from pancreatic B-cells (saphonyl urea), insulin senziters, PPAR gamma antogonists (glitazones) are also in clinical practice and the rising diabetes market observe a number of changes.(Ashok K *et al*, 2002].

The Siddha system is one of the oldest systems of India. According to siddha system the three elements vatha, pitha and kapha the proper combination of these three elements in the ratio 4:2:1 results in good health and wellbeing. Siddha diagnosis is unique with respect to figure out the vitiation of the three humours of an individual's body constitution. Madhumegam had been mentioned in various classical texts. As per '*Noi naadal noi muthal naadal thirattu*' part II any pathology which gives rise to increased urination in quantity or frequency irrespective of the varied causes is included under *Neer perukkal noigal* or *Neerizhivu* or *Mega neer* or *Madhumege noi* which can be co-related to Diabetes mellitus or Diabetes insipidus. In this minor project, treatment aspect of Madhumegam related research works were focused.

EPIDEMIOLOGY

Recent estimates by WHO and International Diabetes federation indicate that there were 171 million people in the world with diabetes in the year 2000 and this is projected to increase to 366Million by 2030[WHO, 2006], The latest estimates show a global prevalence of 382 million people with diabetes in 2013, expected to rise to 592 million by 2035. The aetiological classification of diabetes has now been widely accepted. Type 1 and type 2 diabetes are the two main types, with type 2 diabetes accounting for the majority (>85%) of total diabetes prevalence. [Nita Gandhi Forouhi *etal*, 2014]. The number of people with diabetes has risen from 108 million in 1980 to 422 million in 2014. The global prevalence of diabetes among adults over 18 years of age has risen from 4.7% in 1980 to 8.5% in 2014. Diabetes prevalence has been rising more rapidly in middle- and low-income countries.

AIM AND OBJECTIVES

The present study is focused to determine the similarities and differences in Siddha and Ayurveda concept about Madhumegam and its management.

OBJECTIVES

- To determine the treatment regimens in two indigenous systems for Madhumege noi.

- To collect the various literature evidences in Siddha and Ayurveda concept of Madhumegam.
- To familiarize uncommon & scattered medications for Madhumega noi.

MATERIALS AND METHODS

To carried out a bibliographic review using classical text books and pubmed, google scholar databases, limiting the search to 18 scientific articles and 15 books. The selection criteria included articles and books described the association with Madhumegam and indigenous systems.

STUDY SETTING

Detailed search will be performed in concerned libraries for getting relevant information.

STUDY AREA

Thecentral library, Govt. Siddha Medical college, Palayamkottai and Santhigiri Ayurveda Medical college, Palakkad, Santhigiri Siddha Medical college, Trivandrum, Navajyothi Sree Karunakara Guru Research Centre for Ayurveda and Siddha, Uzhavoor, Kottayam. Trivandrum, Kerala.

STUDY PERIOD

From April 2019 to September 2019 (Six months).

SIDDHA ASPECT

In siddha Diabetes mellitus is compared to Neerizhivu. Saint Theraiyar has classified the diseases of the urinary system in to two major categories of Neerinaï perukkal and Nerrinaï arukkal noikal. Any pathology which gives rise to increase in urination in quantity or frequency irrespective of the varied causes is included as Neerperukkal noigal or Mega neer or Madhumegam.

Based on this properties this disease is divided into two sections they are Neerine arukkal noikal which includes Kalladaippu (Renal calculus), Neerchurukku (Dysuria), Neerkattu (Anuria (or) Oliguria), Sottuneer (Dribbling of urine) & Vellai (Gonorrhoea) and Neerine Perukkal Noikal (Polyuria) This disease is characterized by polyuria, progressive weight loss, and it affects the seven physical constituents (Thathus).

VARIOUS PROTOCOLS FOR TREATMENT BASED ON LITERRATURES

In siddha system treatment is not only for body but also for mind. This is mentioned in the book Thirumoolar 800 as prevent disease and increase immunity.

Theran Maruthuva Bharatham

This book gives a detailed methodology which should be followed in the selection of medicine in the treatment of Madhumegam.

- First the Rasa thathu must be normalized among seven physical constituents for this Gandagam preparations like Gandhaga parpam, Gandhaga Rasayanam, Gandhaga sudar thylam should be administered. (Sulphar contents).
- Secondly to neutralize Kuruthi iron based preparations like Aya parpam, chendooram along with Navalppattai juice or Navalppazha juice as adjuvant should be given. (Ferrous or Ferric sulphate).
- To increase Oon production and to neutralize azhal humour which is increased due to mega disease, silver based preparations along with Neermullipoo juice, Manathakkali seeds or any diuretics should be given.
- To increase kozhuppu thathu and strenghthen enbu Gold preparations should be given.
- For increasing moolai and thavalam(Vindhu) lead and copper based preparations should be given.

As per Prameha Nivarana pothini

First stage of treatment

Before starting treatment, for the preparation of patient, we have to give a laxative. If the patient has constipation seemai Nilavarai (Cassia sennai) or Induppu preparations are advisable. Then diuretics like Vellari vithai parippu, Moolampazha vithai paruppu, Aatruthummattikkai vithai paruppu, Surai vithai paruppu. Kasini vitahi, Aali vithai, Jeeragam, Vedyuppu should be given for elimination of liquid waste in the body. In this stage the bladder control medications are inadvisable. To reduce swelling, fomentation with milk and water mixture or neem leaves can be given. Food which is easily digestible like gruel prepared by rice, wheat, and leafy vegetables should be given. Reduce salt and pungent in food. Avoid sweet items, coffee, alcohol etc.

Second stage of treatment

In this stage patient should avoid strenuous exercise, fast walking. Medications which control the bladder can be given like Padikaram, Valmilagu, Kungiliya thylam, Chandana ennai.

Third stage of treatment

Like second stage this is the apt time for giving medications to control bladder especially Valmilagu, Kungiliya thylam etc. Physician should select the medicines according to the condition of the patient. Along with this, it is the suitable time for administering enema (Peechu) for better results. Unlike second stage, here the external medicines like peeche should be done during day time by reducing the internal medicines. Initially for enema we should select mild medicines then gradually shift to the strong medicines. For example if we use a decoction by adding four kuntri edai of medicine, gradually dose can be raised as adding five or six kuntri edai of medicine in the water. Then we can adjust the dosage as per patients body condition.

If there is any burning sensation or discomfort while doing enema, pukuthi prayogam (Bougie) can apply. Bougie should be dipped in kungiliya thylam and insert into the urethral meatus 1 to 2 times daily. Care should be taken in this procedure so it is better done under the supervision of an expert.

Fourth stage of treatment

Patients who are not taking proper treatment and proper dietary advice develops this stage and their management is also difficult. In this condition we can select Tharutiakari chikitsai, which is to load up iron rich foods which purify and increase hemoglobin like Drakshathi decoction. Patient should live in hygienic place, expose to pure air and if necessary peeche, pukuthi prayogam(Bougie) also advisable. If there is boil formation, medicine which ripen the boil and stimulate drainage should be administered.

Treatment for chronic cases (Natpatta prameham)

Parangippattai, Nannari, Rasa parapam are and Vedyuppu prayogam is using in internal medicine and Thurisu, can be administered externally for carbuncle. The line of treatment from various methods noticed, like external therapies, internal medicines, laxatives, purgatives, coolents, stimulants, constrictures, enema, fomentation, Bougie application, purifiers, tonics etc.

List of Common medicines used in madhumegam noi.

Sl.No.	Name of Book	Name of Drug	Key ingredient
1.	Yugimuni Vaidya kavyam	Morundai	Rasam(Mercury),Kareeyam(Lead)
2.		Vasuvathi choornam	Jathipathri(Myristica fragrance Houtt)
3.		Sooryamantha kudineer	Katalazhinjilpattai (Alangiumspeciosum.Linn.f.)
4.		Narayana kuligai	Kantham(Magnet),Rasam(Mercury),
5.		Arisangunatha guligai	Abraham(Mica),
6.		Gandhagavundai	Gandhagam(Sulphur
7.		Salamirukku guligai	Rasa parpam(Mercury)
8.	Yugimuni vatha kantam	Athippazha kyazham	Athi(Ficus racemosa .Linn)
9.	Neerizhivu noi Maruthuvam	<i>Maruthampattai kashayam</i>	<i>Maruthampattai</i> (Terminalia arjuna Roxb.)
10.		<i>Vilvavathi kashayam</i>	<i>Vilvaverpattai</i> (Aegle marmelos Linn.)
11.		<i>Athiyathi kashayam</i>	<i>Athimarapattai</i> (Ficus racemosa Linn.)
12.		<i>Nellyathi kashayam</i>	<i>Nelli</i> (Phyllanthus emblica Linn.)
13.		<i>Palithathi kashayam</i>	<i>Vilvaverpattai</i> , (Aegle marmelos Linn.)
14.		<i>Avaraiyathi kashayam</i>	<i>Avarampattai</i> (Senna auriculata Linn.)
15.		<i>Kumizhathi kashayam</i>	<i>Nilakkumizh verpattai</i> (Gmelina arborea Linn.)
16.		<i>Azhinjiyathi kashayam</i>	<i>Kadalazhinchil</i> (Alangium speciosum)
17.		<i>Sooraiyathi kashayam</i>	<i>Soorai verpattai</i> (Ziziphus oenoplia)
18.		<i>Thriphaladi kashayam</i>	<i>Thriphala</i>
19.		<i>Elathi kashayam</i>	<i>Elam</i> (Elettaria cardomomum Maton.)
20.			
21.		Padartha guna vilakkam	Gomoothira silasathu(Asphaltum

AYURVEDA ASPECT

The knowledge of Madhumega is available in Avathara veda. It is mentioned in Kaushika sutra as 'Sayana. Basically Prameha is one of the disease associated with increased frequency and quantity of urine and its turbidity which is due to various physical and chemical changes of body tissue. Prameha comprises 20 sub divisions and it is further classified into three groups ie, Kaphaja prameha^[10], Pittaja Prameha^[6], Vataja premeha^[4] which are resembles very much with different types of Diabetes mellitus. Madhumeha is the terminal stage of prameha. Sleep during the day lack of physical activity indolence and gorging on sweet, fatty and liquid diet will predispose an individual to urinary disorders. Given this kind of lifestyle unripe (Ama) vatta, pitta, & kapha would blend with adipose tissue and course downwards

through the minute urinary channels to urinary bladder for excretion when different types of Prameha become manifest.

Management of Prameha by Sodhana

To start with the patient should be given lubricant therapy with the oil of Danti, Ingudi, Sarasapa or Atasi or a ghritha made with Priyangavadi group of drugs followed by emesis and purgation. After purgation a non-lubricant enema with Surasadi drugs supplemented by Sunthi, Devadaru, Musta, honey and Rock salt should be given. When the evacuative therapy has cleansed the body, medicinal formulations as listed below should be given.

Management of Prameha by Samana Dravyas

- Haridra mixed with honey:juice of Amalaka as anupanam.
- Decoctions of Triphala, Visala, Devadaru and Musta.
- Paste of Sala, Kampillaka and Mustaka mixed with honey and Haridra: Amalaka juice as adjuvant.
- Paste of flowers of Kutaja, Kapittha, Rohitaka, Bibhitaka and Saptaparna.
- Decoction of bark, leaves, roots, fruits and flowers of Nimba, Aragvada, Saptaparna, Murva, Kutaja, Somavrksa and Palasa After evacuation (Purgation) therapy the patient should take Silajitu in the appropriate dose with powdered Salasaradi drugs and its decoction in the morning. When it is digested he should be given food with soup of meat of wild animals. The patient would be free from Madhumeha, will regain strength and lusture.

According to the book Legacy of Susruta

Based on the dosha perturbation in treatment of Kaphaja prameha decoctions of herbs like Parijata, Vaijayanti, Nimba, Citraka(*Plumbago zeylanica*), *Khadira* (*Acacia catechu*), *Patha* (*Cyclea peltata*), *Agaru* (*Aquillaria malaccensis*) and *Harithaki* (*Terminalia chebula*), *Haridra*(*Curcuma longa*) and *Daru hardra*(*Berberis aristata*), *Saptaparna*(*Alstonia scholaris*), *Durva* (*Cyanodon dactylon*), *Saivala, plava* etc.ending in *Kaseruka* (*Scirpus grossus*), *Thriphala*, *Aragvadha* (*Cassia fistula*) and *Draksa* (*Vitis vinifera*) are advisable.

In Pittaja premeha decoctions of herbs like Salasaradi drugs and Asvattha, Aragvadha, Nyagrodhadi drugs, Triphala, *Manjishta* (*Rubia cordifolia*) and Candana (*Santalum album*), *Guduci* (*Tinospora cordifolia*), *Tinduka* (*Dispiros malabarica*) seeds, *Kasmarya* (*Gmelina arborea*) and *kharjura* (*Phoenix sylvestris*) are advisable.

In Vataja premeha decoctions of herbs like Kushta, Patha, Katurohini with decoction of Citraka, Agnimanthaor Simsapa, Kadara, K ramuka, Tinduka, (Dyspyros malabarica), Kapittha (Feronia limonia), Sirisa etc. ending in Duralapha, *Priyangu*, (Callicarpa macrophylla) *Ananta* (Gardenia jasminoides), *Yuthika* (Jasminum auriculatum) etc. ending in *Mocarasa* (gum of silk cotton tree), Srngataka, Gilodya. bisa etc. ending in *Vikankata*. (Flacourtia indica) are advisable.

CONCLUSION

It is necessary to reinforce the idea that the patient should be followed properly by skilled health professionals. These health professionals should give all necessary indication for patients to know the importance of maintaining good health to preventing complications. It is mentioned by Susruta *that if a person who is running is wishing to walk, and who is walking is wishing to sit, who is sitting is wishing to lie down* will obviously succumb to Madhumegam. Hence sedentary life style and over nourishment is the major cause of Madhumegam. The complete course of Prameha starts from kaphaja and end up in Madhumege according to Ayurveda. Our ancient systems Siddha and Ayurveda have the best treatment for controlling diabetes without any further side effects. The only mandatory thing is that treatment procedures are to be followed with strict diet regimen and prescribed exercises. Finally this study is concluded Siddha and Ayurveda basic concept and treatment modalities are almost similar in pathogenesis, line of treatment and management.

REFERENCES

1. Achal. R et al. A comparative study of Siddha & Ayurveda medication system of India Anc Sci Life, 2012; 32(1): S107.
2. Anaivari Ananthan, Agathiyar Maruthuvam, Department of Indian Medicine and Homeopathy Chennai-600 016, 2009; (1): 320.
3. Arangarajan S Megavakatathirattu, Saraswathy mahal noolakam Thanjavoor, 453; 70-85.
4. Ashok K, Tiwari J Madhusudana. Current science, 2002; 83(1): 10-30.
5. Balamanohary U, 1 Uthayanan S 2, Neerizhivu: a comparative review as per siddha and modern classics, International Journal of Complementary & Alternative Medicine, 2018; 11: 6.
6. Bellei EA, Biduski D, Cechetti NP, De Marchi. Diabetes Mellitus m-Health Applications: A Systematic Review of Features and Fundamentals. Telemed J E Health, 2018; 24(11): 839-852.

7. Bhushan, P., Kalpana, J., and Arvind, C. Classification of Human Population Based on HLA gene Polymorphism and the Concept of Prakriti in Ayurveda, *Journal of Alternative and Complementary Medicine*, 2005; 11: 349-353.
8. Ghodke, Y., Joshi, K., and Patwardhan, B. Traditional Medicine to Modern Pharmacogenomics: Ayurveda Prakriti Type and CYP2C19 Gene Polymorphism Associated with the Metabolic Variability, *Evidence-Based Complementary and Alternative Medicine*, 2011; 2011: 249528.
9. Hörnquist JO^[1], Wikby A, Stenström U, Andersson PO, Akerlind I, Type II diabetes and quality of life: a review of the literature, 1995; 8(1): 12-6.
10. <https://www.diabete.qc.ca/en/understand-diabetes/all-about-diabetes/history-of-diabetes/treating-diabetes-1921-to-the-present-day>.
11. Kuppusami Mudaliyar K N, Siddha Maruthuvam Pothu, Department of Indian Medicine and Homeopathy Chennai-600 016, 2007; (7): 509-521.
12. Mohan R C, Yugimuni Vaidya Chinthamani 800, Thamarai noolakam Vadapazhani, Chennai, 2013.
13. Mohan R C, Yugimuni Vaidya Kavyam, Thamarai noolakam Vadapazhani, Chennai, October, 2014; (274): 258-271.
14. Mohan R C, Yugimuni Vatha Kandam, Thamarai noolakam Vadapazhani, Chennai, February, 2006; (290): 145.
15. Mohan. R. C, Prameha Nivarana Pothini, Thamarai noolakam Vadapazhani, Chennai, May, 2001; (271): 27-31.
16. Nathaniel Winer MD, James R. Sowers MD. Epidemiology of Diabetes. *The Journal of Clinical Pharmacology*. April, 2004; 44(4): 397-405. Available from <https://doi.org/10.1177/0091270004263017>.
17. Nicki R Colledge et al, *Davidsons Principle and Practice of Medicine*, Elsevier Limited, 2010; (21).
18. Nita Gandhi, Nicholas J Wareham, *Epidemology of Diabetes*, PMC, 2014; 42(12): 698-702.
19. Report of a WHO/IDF Consultation, Definition and diagnosis of diabetes mellitus and intermediate hyperglycemia WHO Press. World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland, 2006.
20. Seema Abhijeet, Kaveeshwar Jon Cornwall. The current state of diabetes mellitus in India, *Australas Med J*, 2014; 7: 45-48.

21. Shanmugavelu KN. Noinadal Noimuthal Nadal Thirattu- part II. Indian Medicine, Department of Homeopathy Chennai-600 016. 2010; 457-505.
22. Sreeramadehikal. S. S Akkinivesarin Charaka Samhithai part I, Department of Indian medicine and Homeopathy Chennai-600 016.
23. Suseela. R, Jeeva Gladys, Rathinam Aruna devi, J Jyothi, C Arunachalam and K Balagurusamy. A review on anti-diabetic herbs of Siddha system with special reference to it's organoleptic quality (taste) as per tridosam concept. International Journal of Herbal Medicine, 2017; 5(5): 97-101.
24. Valiathan M S, The Legacy of Susruta, Orient Longman, 2007.
25. Valiathan M S, The legacy of Caraka, Orient Longman Chennai, 2003.
26. Vasudevasasthri Sarapendriya Vaidya muraikal Neerizhivu chikitsai, Saraswathy mahal noolakam, Thanjavoor, ed 38; 6-10.