Neerizhivu: a comparative review as per siddha and modern classics

Abstract

In recent years, as the Diabetes Mellitus proliferate worldwide and the disease takes an ever increasing proportion of national and international economy of health care. Though there is numerous existing cause of this dreadful disease the actual factors which become excited according to the Siddha system of medicine are the three humors which are the basic constituents of living body. The term Diabetes Mellitus describes a metabolic disorder of multiple etiologies characterized by chronic hyperglycemia with disturbances of carbohydrate, fat and protein metabolism resulting from defects in insulin secretion, insulin action, or both. Diabetes Mellitus is a condition which can be compared with Neerizhivu in Siddha. The other names described in the texts are the Madhumegam and Inippuneer. The signs and symptoms explained is increased urination both in frequency and quantity, there will be flies surrounding the urine voided place, weight loss, dryness of the skin, etc. The disease comes under the Mega diseases. The literature of Neerizhivu described in Siddha School of thoughts still remains the great scope of research in the field of Diabetes Mellitus. The ancient traditional knowledge of the disease is analyzed here and review is made to compare the disease Neerizhivu in meganeer correlated with is Diabetes mellitus in modern medicine. Neerizhivu has 20 sub types in three classifications Vazhi (vatha), Azhal (pitha), Iya (kapaha) Neerizhivu and 10 Avasthaigal correlated with different stages and complications of Diabetes mellitus in modern classics.

Keywords: neerizhivu, madhumegam, diabetes mellitus, inippuneer

Introduction

Diabetes mellitus has gigantic disgrace in recent times as it is fast becoming the world’s largest silent killer. The diabetes mellitus is very difficult to diagnose in early stages. Diabetes is one of the most common non-communicable disease (NCDs). 415million people have diabetes in the world and 78million people in the South – East Asia region; by 2040 this will rise to 140million. There were 1.16million cases of diabetes in Sri Lanka in 2015. Our ancestors elaborated the knowledge of the disease neerizhivu in many school of thoughts. Saint Theraiyar in his “Theran karisal” has classified the diseases of traditional knowledge of the disease Neerizhivu in meganeer correlated with is Diabetes mellitus in modern medicine. Neerizhivu has 20 sub types in three classifications Vazhi (vatha), Azhal (pitha), Iya (kapaha) Neerizhivu and 10 Avasthaigal correlated with different stages and complications of Diabetes mellitus in modern classics.

Table 1 | Comparison of Neerizhivu with diabetes mellitus

| Sl. No | Particulars | Neerizhivu | Diabetes Mellitus |
|--------|-------------|------------|------------------|
| 1      | Definition  | Disease characterized by polyuria, presence of honey (or) Sweet odour in urine on heating. It is ultimately deteriorates all the seven udal thathus (seven fundamental tissues of the body) | Diabetes mellitus is a syndrome characterized by polyuria, polydipsia, polyphagia, and persistent hyperglycaemia with or without glycosuria. It is a metabolic disorders i.e. carbohydrate, protein and fat metabolism and to deficiency of insulin. |
| 2      | Aetiology   | a. Thanvinai (kanma vinal) b. Puravinai (Acquired) | a. Type I Diabetes Mellitus Hereditary–diabetes have noted to be |

Aim and objective

The ancient traditional knowledge or wisdom of the disease Neerizhivu is highlighted here and attempt is made to compare in aspect of disease with the modern medical science. For this purpose, right from definition, classification, pathogenesis, clinical features, complications and treatment aspect all have been taken into account both from the literature of Siddha and modern medicine (Tables 1–3).
Table 2 Premonitory symptoms in siddha terminology

| Premonitory symptoms in siddha terminology | Literary meaning | Modern terminology |
|-------------------------------------------|------------------|--------------------|
| Pala nirankal neer kalithal               | Physical Appearance of abnormality in urine | Diabetic nephropathy |
| Mel moochu, Mayakkam, sorvu               | Dyspnoea         | Respiratory Tract Infections/ketoacidosis Metabolic encephalopathy |

Table 3 General symptoms and signs of neerizhivu along with modern aspect

| Premonitory symptoms in siddha terminology | Literary meaning | Modern terminology |
|-------------------------------------------|------------------|--------------------|
| copy Kai kal erivu, mathamathappu         | Numbness and burning sensation in hand feet | Diabetic neuropathy |
| Pisupisuththa viyarvai, siruneer nastruthaan elithal | Unctuous sweating, bad odour of urine | Hyperglycaemia leads to glycosuria and infections |
| Vanphi, naavaratsi                         | Vomiting, Dryness in mouth | Osmotic diuresis leads to electrolyte imbalance (Diabetic Ketoacidosis, Diabetic Non Ketoacidosis) |
| Udal veluthathal, paruthal pisupisuththa viyarvai, sompi thirithal | Excessive sweating, laziness | Obesity induced symptoms Hypoglycaemia |

Table 4 Neerizhivin 10 avasthaigal along with modern explanation

| Sl. No | Avasthaigal          | Literary meaning | Complications according to the modern medical science |
|--------|----------------------|------------------|------------------------------------------------------|
| 1      | Udal Paruthathal     | Obesity          | Metabolic Dyslipidaemia                               |
| 2      | Venner Kedum         | Liquefaction of semen | Diabetic nephropathy and ERDS, Asthenospermia, oligospermia |
| 3      | Navaratsi, Vaytril Kaatru Kooduthal | Dryness in tongue, and flatulent abdomen | Autonomic neuropathy due to metabolic derangements |
| 4      | Neer vetkai, Muppini | Severe thirst and abnormality, and delirium | Mental disturbances due to metabolic acidosis / alkalosis |
| 5      | Vinthu Nattam        | Loss of semen    | Retrograde ejaculation and spermaturia, premature ejaculation |
| 6      | Moorchai             | Difficulty in breathing and sleeplessness | State of unconsciousness, encephalopathy due to hypoglycaemia or metabolic disease |
| 7      | Suwai Maaral, Mel Moochu, Udal Vali | Tastelessness and general weakness | Diabetic keto, non keto and lactic acidosis |
| 8      | Kalalai, Pilavai     | Forming of abscess or carbuncles | Carbuncles, abscesses, diabetic foot |
| 9      | Pethi, padukkayil kidakkavosthathu, Pulu Serum | Diarrhoea, bed ridden, bed sores | Recurrent infections |
| 10     | Elaiippu, Maranam    | Secondary disease like TB or some other complications finally leading to death | Superadded opportunistic infections like Tuberculosis |

Description of neerizhivin 10 avasthaigal

If proper treatment and care is not taken, the disease Neerizhivu leads to lots of complications. Yugimuni has given vibrant description about the complications as avasthaigal. The onset of the following sufferings will be followed gradually if the disease is not controlled or left untreated. Following charts gives details posture of the various complications in relation with modern point of view.5,6

Discussion

Neerizhivu comprises 20 sub varieties of diseases with various physical and chemical changes in urine and is further classified in to three groups i.e. Kapha neerizhivu (10), Pitta neerizhivu (6) and Vatha neerizhivu (4) which are resembles very much with different stages of diabetes mellitus. It has been observed that with progression of the disease there is increased hyperglycemia and simultaneously fall in plasma insulin. Whatever the Avasthaigal mentioned by the Yugimuni are the same as that of modern science which are described after various research activities and with proper evidences. In short we can say that the vatha pitha and kapha Neerizhivu are different type of diabetes along with hyperglycemia kapha neerizhivu is due to malfunctioning of the pancreas result to improper insulin secretion (insulin resistance), pitha neerizhivu is due to over functioning adrenal, thyroid, glycogen and cortisol and vatha neerizhivu is because of true

Citation: Balamanohary U, Uthayanan S. Neerizhivu: a comparative review as per siddha and modern classics. Int J Complement Alt Med. 2018;11(6):364-366. DOI: 10.15406/ijcam.2018.11.00427
insulin deficiency due to Auto immune or idiopathic destruction of β cell of islet of Langerhans of pancreas. There is possibility that insulin independent type of diabetes leads to the stage of insulin dependent diabetes. Thus the concept of different stages of diabetes mellitus is well comparable with the types of neerizhivu as describe in Siddha Medicine. Modern medical science also says that Type 2 diabetes can converted to type 1 due to untreated or improper management as well as in Neerizhivin 10 avasthaigal.7–11

Conclusion
The review is concluding as Neerizhivu noi can be used as a synonym of diabetes mellitus. This work highlights the Siddha perspective of Diabetes based on the derangement of three humors vatham, pitham and kabham. So, it is can be concluded description of etiology, pathogenesis, clinical feature, complications etc. appears to be similar in both Siddha and Modern medicine in respect of Neerizhivu i.e. Diabetes Mellitus. Both systems of medicine should unite and lift the health among humans on to the world arena. Siddha Medicine is a cost effective remedy for a number of maladies. However the Siddha System needs to be standardized and validated scientifically.

Acknowledgements
None.

Conflict of interest
Author declares that there is no conflict of interest.

References
1. Kuppusamy Muthaliyar KN. Siddha Maruthuvam–Pothu. Indian Medicine, Department of Homeopathy, Chennai – 600 016. 2012. p. 493–522.
2. Shanmugavelu KN. Noinadal Noimuthal Nadal Thirattu- part II. Indian Medicine, Department of Homeopathy Chennai–600 016. 2010. p. 457–505.
3. Vasudevasastri K. Vengatranj S. Sarabendra Vaidya Munaiakal Neerizhivu Chiktasi. Saraswathy Mahal Noolagam, Thanjavur. 2012.
4. Ramachandran SP. Yugimuni Vaidya Chunthamani 800. Thamarai Noolagam, Chennai; 2013. p. 174–190.
5. Shanmugavelu M. Noikalukku Siddha Parikaram- part II. Indian Medicine-Department of Homeopathy Chennai–600 016. 1993. p. 98–149.
6. Subramaniyan MA. Heritage of the Tamils–Siddha Medicine, 1st ed. Madras: International Institute of Tamil Studies. 1983. p. 314–350.
7. Srinivas P. Diabetes Mellitus (Mathumeham)-An Ayurvedic Review. Int J Pharm Pharm Sci. 2014;6(Suppl 1):107–110.
8. Siddha Treatment Guidelines for selected Diseases. Department of AYUSH, Ministry of Health & Family Welfare Government of India & WHO Country Office for India, National institute of siddha, Chennai, New Delhi; 2014. p. 150–157.
9. Harrison’s et al. Diabetes mellitus. Harrison’s Principal of Internal Medicine. 19th edn. New Delhi: MC Grew Hill Medical, 2000.
10. Christopher H, Edwin RC, Jhon AAH, et al. Davidson's Principle and Practice of Medicine. 18th edn. London: Churchill Livingstone; 1998. p. 472–509.
11. Parveen Kumar, Michael Clark. Kumar & Clark Clinical Medicine. 6 ed. London; 2005. p. 1101–1134.
12. Kuppusamy Muthaliyar KN. Siddha Maruthuvam–Pothu. Indian Medicine, Department of Homeopathy, Chennai – 600 016. 2012. p. 493–522.