

A CONCEPTUAL REVIEW OF KRIYAKALA BASED ON TYPE II DIABETES MELLITUS

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ABSTRACT

Background: Understanding of *Satkriyakala* helps in identifying the stages of disease progression and adapting treatment approaches accordingly. In modern science every disease diagnosed in two stages i. e the symptoms and complications, but in *Ayurveda* the six stages of *Kriyakala* helps in advance manner to diagnose a disease. An early diagnosis of disease lead to a better treatment modality. In *Ayurveda*, the diagnosis and understanding of Type 2 Diabetes Mellitus (T2DM) with respect to *Satkriyakala* involves a holistic approach that considers various stages of disease progression and underlying imbalances in the body's *Doshas* (*Vata*, *Pitta*, and *Kapha*). Rationale: Ayurvedic diagnosis of type II diabetes mellitus involves assessing the patient's symptoms, pulse diagnosis (*Nadi Pariksha*), tongue examination (*Jivha Pariksha*), and considering lifestyle factors, dietary habits, and emotional well-being.

Treatment typically includes personalized diet modifications, herbal formulations to improve insulin sensitivity, stress management techniques, and detoxification therapies to reduce *Ama* and restore *Doshic* balance. It's crucial to consult with a qualified Ayurvedic practitioner who can conduct a comprehensive assessment and create a customized treatment plan addressing both the symptoms and underlying imbalances associated with T2DM according to *Satkriyakala* principles.

KEYWORDS: *Ayurveda*, *Shatakriyakala*, Disease progression, Diabetes, Cancer.

INTRODUCTION

Kriyakala, a distinctive concept of *Ayurveda*, offers into both diagnosing and predict how a disease might progress. It refers to the treatment methods suitable for different stages of an

illness. In modern science, diseases are typically understood in two stages; first, the detection of the disease itself, and second, the complications that arise from it,^[1] however, *Ayurveda* identifies six distinct stages (*Shatakriyakala*) in any disease.^[2] In present era, there is continued search for the queries related to disease formation, susceptibility and prognosis. Adding to it, there are new emerging diseases and their variations, owing to lifestyle, community and global changes and the concept of *Shatakriyakala* explains a comprehensive approach that can be applied to any disease not only for understanding but also for the successful treatment. Diagnosis in *Ayurveda* is not always^[3] in terms of the name of a disease but in terms of the nature or the phenomenon of the disease. The phenomenon is described in terms of the *Sampriti* (pathogenesis) of the disease in each patient, comprising *dosha*, *dushya* and *adhisthana* components (i.e the humours, the body tissues and the site of the disease). Current healthcare models are undergoing an extraordinary worldwide upheaval in the twenty-first century. Significant raise of non-communicable diseases (NCDs), especially mental illness, cancer, diabetes, and chronic respiratory ailments among these diabetes affects 422 million people globally, and it is directly responsible for 1.5 million death annually estimates for 2019 place the prevalence of diabetes at 9.3% (463 million people), with 10.2% (578 million) and 10.9% (700 million) predicted for the following year.^[4] A metabolic syndrome with many aetiologies known as diabetes mellitus is characterized by persistent hyperglycaemia and changes in protein, lipid, and carbohydrate metabolism that led to deficiencies in insulin secretion or activity, or both,^[4] India is known as the diabetes capital of the world and it is estimated that it caused 4 million adult deaths in 2017. As per *Acharya Sushruta* the causative factor like *Guru* and *Snigdha* food aggravate the *Kapha Dosha* which affect the *Jatharagni* of the body which leads to *Mandagni*^[5] that lead to *Srotoavarodha*, which is the main reason for all pathological condition in the body this will lead to *Vimargagamana* which will divert the flow of nutritious substance and waste material in the body which will vitiate the *Dosha*, *Dhatu*, *Mala* in the body. *Dosha Sanchaya* or the build up of *Dosha*, is the fault of *Mandagni*. The *Pachana Kriya* is impacted as a result excessive undesired wetness, or *Kledvruddhi*, arises in the end, the person develops *Prameha* propensity.

MATERIAL AND METHOD

I have collected 114 article in the PubMed, Science Direct, Scopus and Google Scholar of which 35 articles were screened, because in these article *Shatkriya kala* and *Prameha* both

the topics explained well. The *Samprapti*, *Lakshyana*, *Upadrava* of *Prameha* and the Pathophysiology of Type -2 Diabetes mellitus are explained well in these articles.

Sanchaya avastha in prameha

Etiology

Sanchaya Avastha of *Prameha* come down by indulgence in sedentary life style, excessive sleep, intake of curd, meat soup of domestic, aquatic and marshy animals, milk products like yogurt, cheese, and cream, freshly harvested food articles like white rice, wheat etc. Fresh wine i.e Alcohol containing low alcohol level, jaggery preparations, barbecue Sauce, ketchup, fruit juice, chocolate milk, sports drink and all other *Kapha* promoting substances, intake of food which are cold, unctuous, sweet, fatty and liquid.

Prameha manifest due to *Adibala* i.e morbidity of *Sukra* and *Sonita*.

Foods, drinks and activities which aggravates *Meda*, *Mutra* and *Kapha* are main etiological factors for the genesis of *Prameha*.

Pathogenesis-By intake of all the *Nidana* there will attain *Sanchaya* of *Kapha Dosha* in *Shareera* and there will be *Ama utpatti* and produce *Lakshana* like *Gouravam*, *Alasyam*.^[7]

Prakopa

Occurs due to continued exposure to improper *Ahara* and *Vihara*

Etiology of vataja prameha

Vata Dosha get aggravated by excessive intake of astringent, pungent, bitter, rough, light and cold things. By excessive indulgence in sex like hyper sexual disorder, compulsive sexual behaviour, debauchery, physical exercise and suppression of natural urges like suppression of urine, suppression of faeces etc.

Etiology of pittaja prameha

Pitta Dosha get aggravated by excessive intake of hot, sour, saline, alkaline and pungent food like Schezwan sauce, Bacon and Deli meats. Intake of food before the digestion of the previous meal. Exposure to excessively hot sun, heat of the fire, physical exertion and anger.

Etiology of kaphaja prameha

Kapha dosha get aggravated by frequent and excessive intake of fresh corns like hayanaka, yavaka, cinaka etc and the intake of pulses like fresh harenu and masa with ghee. Intake of the meat of domesticated, marshy and aquatic animals. Intake of milk, freshwine, immature

curd and avoidance of physical exercise, indulgence in sleep, bed rest and sedentary habits etc.

Symptoms

Further indulgence in same etiological factors leading to aggravation of *Kapha Dosha* along with *Ama rasa* produces *Madhura Rasa* in the body and Presence of *lakshana* like *Annadwesh* (Aversion towards food), *Hrudayotkleda* (Nausea) etc.

Prasara

If the person is following same *Nidanas* there will be rise in *Kapha Dosha* along with circulation of *Madhura rasa* all over the body through *Rasayanis* leading to *Atimedojanana* because of its *Atisneha guna*.^[6]

Lakshyana

There is appearance of *Avipaka*, *Angasaada*, *Sphig /bahu/ janghavrudhi*, *Snigdha angata*, *Udaraparshwavrudhi*

Type 2 Diabetes mellitus

Slight increase in blood glucose level.

Sthana samshraya"

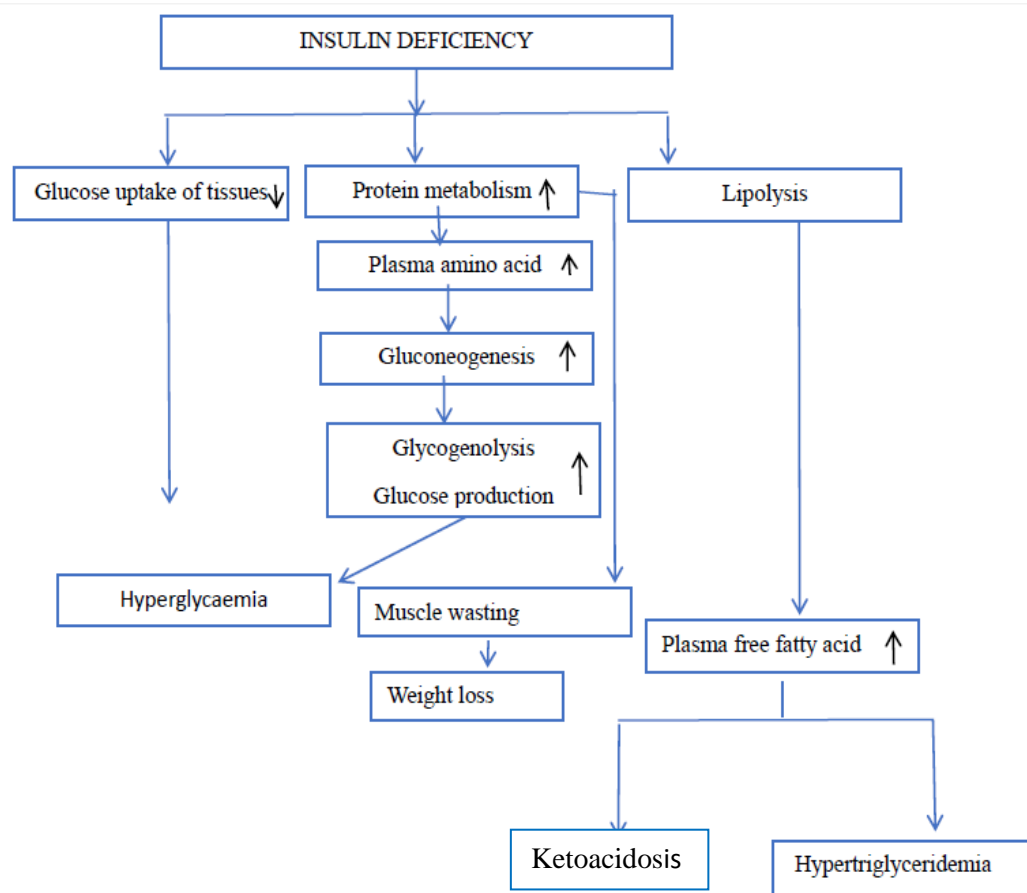
In the *Sthanasamsraya Avastha* stage of *Prameha*, there occurs a convergence of *doshas* with bodily tissues, resulting in structural abnormalities (*Khavaigunya*). *Kapha* having vitiated *meda*, *mamsa* and *kleda* of the body located in *Basti* causes different types of *meha*. Similarly *Pitta* aggravated by hot things vitiates those elements and causes different types of *meha*. When *kapha* and *pitta* are in diminished state, the aggravated *vayu* draws tissue elements, I.e *Ojas*, *Majja* and *Lasika* into the urinary track and vitiates them to cause the third type of *Prameha*.

At this stage, various symptoms (*Purva Roopa*) manifest. *Acharya Charaka* Explains the *Purba Roopa* of *Prameha* are like Sweating (*Sweda*), bad body odour (*Anga gandha*), flabbiness of body (*Shithilangata*), liking for constantly lying on the bed, feeling sedentary (*Shayyasana*), *Rati*, a feeling as if the heart region is covered with some coating (*Hrutupadeha*), exudation of excreta from eyes, tongue, ears (*Netra*, *Jihva*, *Shravana Srava*), bulkiness of the body (*Ghana angata*), *Swapnasukha*, *Kesa Nakha Ati vriddhi*, *Sheetapriyata*,

Gala, talu Shosha, Madhura aasya, Kara pada daha, swarming of ants on the urine(Mutre pippilika).

Type 2 DM

Pathophysiology



Vyakta avastha

In the *Vyaktavastha*, the manifestation of the disease is complete due to the altered state of *Agni* and the unhealthy condition of both *Medas* (fat tissue) and *Kapha dosha*. This leads to the emergence of definitive symptoms (*Pratyatma Lakshanas*). In the stage of *Bheda Avastha*, the distinguishing of *Kaphaja*, *Pittaja*, and *Vataja* subtypes of *Prameha* begins to reveal the specific symptoms (*Vishesh lakshyana*) of *Prameha*. According to *Doshic* predominant there are ten types of *Kaphaja Prameha*, six types of *Pittaja Prameha* and four types of *Vataja Prameha lakshanas* seen in this stage. The ten types of *Kaphaja Prameha* are *Udaka Meha*, *Ikshu Meha*, *Sandhra Meha*, *Sandhraprasada Meha*, *Shukla Meha*, *Sheeta Meha*, *Sikata Meha*, *Shanair Meha*, *Lala Meha*. six types of *Pittaja Prameha* are *Kshara Meha*, *Kala Meha*, *Neela Meha*, *Lohita Meha*, *Manjishta Meha*, *Haridra Meha*. Four types of

Vataja Prameha are *Vasa Meha*, *Majja Meha*, *Hasti Meha*, *Madhu Meha*. All these types of *Prameha* are divided according to the characteristic of *Mutra*.^[7]

Type 2 DM

The blood glucose levels are still elevated. Type 2 diabetes have blood sugar levels that are high enough for a confirmed diagnosis. Significant insulin resistance and beta-cell dysfunction are frequent in this stage. In this stage the most common symptom of diabetic mellitus like polyuria, polyphagia and polydipsia are found.

Bheda

The ultimate stage of a Diabetes evolution, called *Bheda*, marks its termination. Living with Diabetes might have complications that can cause other illnesses and ultimately result in death. In this stage According *Acharya Charaka* there is appearance of seven *Prameha pidaka* I.e *Sharavika*, *Kacchapika*, *Jalini*, *Sarshapi*, *Alaji*, *Vinata*, *Vidradhi*. *Acharya Sushruta* has explained ten number of *Prameha Pidaka* (extra three from Ach *Charaka* are *Vidarika*, *Masurika* and *Putrini*.)

Type 2 DM

The blood glucose level is markly increased. There is appearance of Diabetic retinopathy, Diabetic neuropathy, Diabetic nephropathy, Ketoacidosis, Kussmaul breathing, Excess ketone body formation, Necrobiosis lipoidica seen in the skin.

DISCUSSION

The different predisposing factors mentioned can be categorized as *Mithyaaharavihara Janya* such as sedentary lifestyle and dietary, genetic and family history factors and *Sahaja* or *Beejopaghatajanya*). These factors have been considered as the leading cause for the onset of diabetes mellitus in contemporary science too. The initial three phases i.e., *Sanchaya*, *Prakopa* and *Prasara*, when the sign and symptoms are not expressed can be understood with increased sensitivity of beta cells of pancrease resulting in impaired glucose level. In these three states, there is *Agnivaishamya* and *Doshavaishamya*, thus the pathology can be reversed by correcting modifiable factors such as sedentary lifestyle and dietary factors. Further, in the stage of *Stananshraya*, *Dosha Dushya Sammurchhana* takes place due to *Khavaigunya* in *Srotas* (Anatomical and functional defect at the level of tissue, channels or receptor) and prodromal symptoms are expressed. The insulin resistance is developed either due to decreased sensitivity of insulin sensitive cells such as liver, skeletal

muscle, adipose tissue due to mutation in glucose transporters 2 (GLUT 2) or due to presence of antagonizing hormone such as growth hormone, IGF-1, cortisol etc. The *Khavaigunya* can be related to mutation in GLUT 2 and beta cell dysfunction. The interaction between antagonizing hormone and insulin causing decreased sensitivity of tissue for insulin can be related to *Dosha Dushya Sammurchhana*. Further in *Vyaktavastha*, the sign and symptoms of the diseases are produced, thus in this stage the sign and symptoms of diabetes mellitus are manifested. The stage of *Bhedavastha* is marked by the manifestation of different complications such as cardiovascular risk factors, nephropathy, retinopathy, neuropathy, diabetic ketoacidosis, hyperosmolar hyperglycaemia, etc.

CONCLUSION

Shatkriyakala provides an equal opportunity to cure the disease at each of its stage. Thus, the knowledge of *Kriyakala* is highly beneficial with respect to disease control and its prevention. By adopting the correct level of *Kriya kala* we can adopt primordial, primary and secondary level of prevention for preventing the risk factors. Rehabilitation and limiting the disability are included under the tertiary prevention. Thus, *Shatkriyakala* proves to be extremely helpful for public health professionals who are interested to check the disease progress in the community.

REFERENCES

1. Charak Samhita of Agnivesha with Ayurvedadeepika commentary of Chakrapanidutta, Nidanasthana; Pramehanidanadhyaya. Varanasi: Chowkhambha Krishnadas Academy, 161: 4-4.
2. Sushruta Samhita of Sushruta with Nibandhasangraha commentary of Dalhana, Sutrasthana; Vranaprashanamadhyaya. Varanasi: Chowkhambha Orientalia, 260: 21-36.
3. Sushruta Samhita of Sushruta with Nibandhasangraha commentary of Dalhana, Sutrasthana; Vranaprashanamadhyaya. Varanasi: Chowkhambha Orientalia, 260: 21-37.
4. Concept of shatkriyakala with special reference to type 2 diabetes mellitus *Dr. Devangi Doshi **Dr. Neha Gadgil ***Dr. Prachi Solanki.
5. A cross sectional study of analysis of urine as the diagnostic tool for prameha-nidan by Dr. Neha Dattatraya Gadgil, Dr. Akshar Kulkarni (PDF) A CROSS SECTIONAL study of analysis of urine as the diagnostic tool for prameha-nidan (researchgate.net).

6. Ayurveda insights and hypothetical model for the six stages of prevention and management of diabetes mellitus *1Dr. Meenakshi Sharma, 2Dr. Deepti Mehta and Dr. Sisir Kumar Mandal.
7. Sushruta Sushrutasamhita. In: Shasstri A, editor. Sutra sthana, varnaprashnadhayay. Varanasi: chaukhamba Sanskrit Sanstha, 12: 18-21.