

**CERTAIN CONCEPTS OF “PRAMEHA” (DIABETES) IN AYURVEDA (INDIAN SYSTEM OF MEDICINE) WITH SPECIAL REFERENCE TO THE RELATIONSHIP BETWEEN ANCIENT INDIAN AND MODERN THOUGHTS**

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Received:

Accepted:

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**ABSTRACT:** *Prameha (Diabetes) which has been a global problem is well described in the ancient Indian classics like the Vedas and the Ayurvedic works which ensued the Vedic period. In the present work, the authors have tried to focus the narrations on pramehas in Vedic literature with special reference to the “Kauchika Soothra” of Atharva Veda. A new hypothesis comparing the actions of pittatejas which is set free by the pitta dharakala with the actions of the hormones like insulin and glucagon is also discussed. The aetiopathogenesis of pramehas as described by the Ayurvedic authors with a glance to the therapeutic measures is also included in the study.*

Ayurveda, in short, as a science constitutes an attempt to understand the laws and facts of this Universe, and this attempt is well seen in the “Panca-Bhautika Theory” which is adopted as basis for the super-structure of the whole of the Ayurvedic literature. It is on account of this feeling of cosmic consciousness which is begotten by the “Panca-Bhautika Theory” that psychology and natural philosophy had their place in Ayurvedic medicine. The “Tridosha Theory”, which has evolved from the idea of Panca – Bhautika source of the universe, is the key to the elucidation of pharmacological, pathological and therapeutical factors in the treatment of diseases.

“Diabetes”, considered still as a mystery disease, is fast becoming a global problem.

Diabetic population according to the statistical evaluation till 1974 shows that there are 130 million known diabetics all over the world. While quoting on incidental rate of diabetic population, in India, figure of known diabetics exceed 10 million undetected cases of diabetics in addition.

In other countries like Japan and Canada the rate of incidence is 50 out of 1000, while in U.K it is 15 out of 1000. In U.S.A there are about 5 to 6 million diabetics. Moreover about 6 percentage of the population is subjected to the attack of the disease annually.

The earliest reference of “Prameha” is found in the “Holy Vedas” of India. The word Prameha Literally means “to flow” which is derived from the Sanskrit root

“Mih-Secane”. The descriptions available in Atharva Veda is considered as the first ever on this topic, and is mentioned in Kausika-Sutra. Sayana and Kesavabhata, the well known commentators of the sacred Vedas interpret Asrava as mothrathisara<sup>1</sup>. The above reference from Atharva Veda is described by Krambelkar (1961) as the term asrava is variously interpreted. The term is formed from the roots a + Sr meaning to flow. Whitney (1962) interpreted this as flux and Griffith (1962) as morbid flow. Some have included conditions like athisara (diarrhoea), mutratisara (excessive urination) and rudhirasrava (excessive flow of blood-meaning conditions associated with menstrual flow). Sayana and Kesavabhata, commentators of vedic works included mutrasrava (excessive urination) under asrava<sup>2</sup>.

Whitney (1962) has described the meaning of the reference “as between both heaven and earth stands the bomboo (tejana), so let the reedstalk (munja) stand between the both disease and the flux (asrava). The Comm. Glosses tejana with venu, for asrava....., the comm.. explains it hereby Mutratisara” difficulty (?) of urinating or painful urination (Diabetes) rather.

“What hundred remedies are thine’ and (what) thousand, assembled (with them thou art) the most excellent t=remedy for flux, the best effacer of disease (Whitney 1962)<sup>3</sup>. Griffith (1962) explains it as “of all the hundred remedies, a thousand remedies combined, this is the surest cure for flux, most excellent to heal disease.

Another important reference is also available in Kausikasutra of Atharvaveda.<sup>4</sup>

The Samhita Granthas (Ancient Ayurvedic Classics) with ensued the vedic period bear ample clinical descriptions on this disease.<sup>5</sup> according to the above clinical descriptions it is indicated that the ancient physicians of India were aware of the presence of sugar in blood and urine. It was Thomas wills (1621-1675) who demonstrated this more scientifically. Thereafter William Cullen (1712-1794) added the word “Mellitus” to diabetes, like the Prameha-Madhumeha concept of the ancient Ayurvedic classics. Later on Johann Peter Frank (1745-1821) classified the disease into Diabetes mellitus and Diabetes insipidus. And it was Cawley (1778) who linked the disease with the functions of **Pancreas**. The sugar that is excreted through the urine was names as grape sugar (Cherul-1815). In 1848 Fehling established the presence of reducing sugar in urine of diabetics. Later Claude Bernard held studies in the errors of Carbohydrate metabolism with its relation to diabetes. The Nobel Prize winners of 1923, Best and Banting did outstanding clinical research on insulin and its role in metabolism.

### **New hypothesis of Prameha**

While discussing the relationship between pancreas and diabetes, there is no direct references available in Ayurvedic classics. But considering the indirect reference available in the ancient text books, the senior author has outlines a new hypothesis on the subject mentioned above. According to him “pittadharakala” described in Susruta Samhita can be equated as the “Islet tissue” of pancreas<sup>6</sup> and “Pittatejas” produced from the pithadharakala as the hormones like insulin, glucagonetc. In his studies he also

differentiated the functions of pittatejas and discussed elaborately according to the Ayurvedic point of view<sup>7</sup>, while emphasizing the “Amlavipaka Karma” which is occurring in the grahani (duodenum) including the intestinal tract in par with the functions (duodenum) including the intestinal tract in par with the function of pittatejas (insulin and glucagon)<sup>8,9</sup>. Further he concluded that such thinking indicate the fact that the ancient physician of India had a long view on the role of functions taking place at grahani to the carbohydrates and its impact in the production of disease like diabetes.

Thus it can be inferred that the pittatejas and pittadharakala has a major role in the processes of metabolism of the body, in the proper condition of which the equilibrium of the doshas are also maintained (Rajasekharan 1980).

### **Certain important etiological factors**

The Ayurvedic concept on the manifestation of the disease is essentially associated with “Mithyahravihara” (Improper dietary habits and physical exertion). This principle has to be variously interpreted in the causation of different diseases. The dietary and physical factors which induce pramehas as described by the ancient physicians of India are-

- a. The food stuff which has properties of Brmhana (Containing more carbohydrate and fat than proteins).
- b. Sithaveerya (Cold in nature and action)
- c. Amla rasas (Consisting more acidic properties).

- d. Snigdha guna (Which increases Kapha dosa, Medo dhatu and Mutra mala).
- e. Habit of over eating and smoking<sup>10,11,12</sup>

With regard to physical factors, the ancient physicians of India give emphasis on the following factors which predispose diabetes.

- a. Habit of consuming food stuff with madhura rasa (Sweet taste).
- b. Habit of indulgence in excessive sleep, especially in day time.
- c. Excessive indulgence in sexual and other sedentary habits etc.<sup>13, 14, 15</sup> these can vitiate the Kapha dosa which leads to diabetes.

Apart from the above factors they also give stress on the climate and geographical nature in the causation of diabetes. A close study of the above principles lead us to the conclusion that chance of occurrence of diabetes is more in people who are settled in Anupa desa (Wet land)<sup>16</sup>. Almost the same fact was noted by the Moses Maimonides (1135-1204) in his manuscript copy “Yadah-Hazaha” (Striker 1961). The influence of seasonal changes on various diseases have also been described by the ancient physicians.<sup>17</sup> with an intuitive foresight Susruta, the ancient Indian surgeon broadly divided diabetes into two groups (i) Hereditary and (ii) diabetes due to an injudicious way of life. According to him hereditary category is occurring due to the defect in parents. Caraka also expresses the same theory.

Apart from all these, excessive mental strain, emotion and constant worry have

been found to bring about glycosuria and diabetes.<sup>19</sup>

The genesis of diabetes caused by virus is established by a group of German researchers, who created a type of virus which destroys the islets of Langerhans in the pancreas with a high degree of selectivity from a mutant of “encephalomyo-carditis virus” (virus induced diabetes-Nagarjun – 1972). There is no direct evidence to claim such a clue in Ayurvedic classics.

### **Numerical Classification**

According to the predominance of dosa and their relation with dushyas, the Ayurvedic works have classified the disease into 20 distinct types. It can again be sub classified into (a) Vata pramehas, (b) pitta pramehas and (c) Kapha pramehas in which 4, 6 and 10 varieties of Pramehas are included respectively. Amongst the 20 types of pramehas, the most important one is Madhumeha, which can be interpreted as Diabetes mellitus and is also considered as incurable condition.

### **Notes on Samprapti: (Aetio-pathogenesis of pramehas)**

The quantitative and qualitative increase in the properties of kapha dosha leads to pramehas. While describing the course of manifestation, Charaka has given clear indication to the effect.<sup>20</sup> Table I reveals the doshas and dooshyas which are affected in this condition.

### **Signs – Symptoms and treatment**

More than 25 signs and symptoms of pramehas has been mentioned in the ancient Ayurvedic classics including the cardinal symptoms of diabetes ilke polyurea, poly dyspepsea etc. In addition to that they described the signs and symptoms according to doshakopa (vitiation of dosha) and has also given an elaborate description of its complications viz. Neurological, Vascular and Metabolic disorders.

As far as treatment is concerned, Acarya Caraka classified the diabetic patients into different groups and suggested suitable remedies according to the nature of the disease, condition of the patient, age and intensity of the disease. In certain groups of patients he prescribed “Pancakarma Therapy” – (a special branch of treatment with various techniques) in addition to the oral administration of various medicines. Ayurveda prescribes “exercise” for diabetes. This observation was reinvestigated recently by Dr. Vranic of Canada and he concluded that exercise enabled higher utility of glucose by the body.

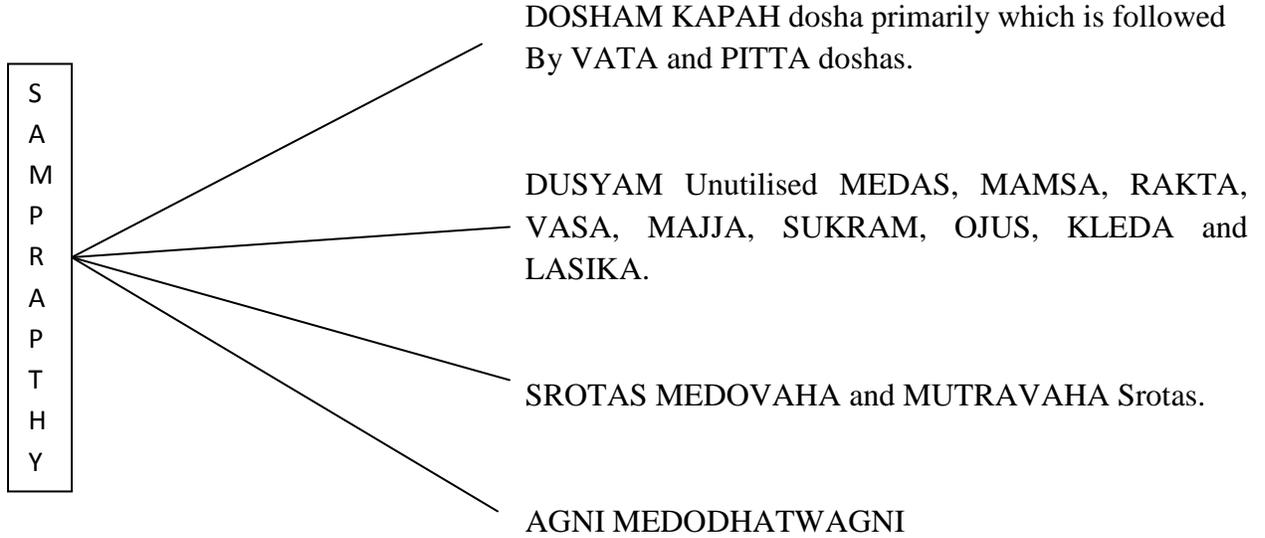
### **Certain notable observations of ancient Indians**

Highlighting the role of Zinc in the treatment of pramehas, it is clearly indicated that the direct administration of Zinc in the form of medicine controlled the disease significantly. Usage of the same was very common in the ancient time.<sup>21</sup> But this observation was demonstrated more scientifically only in 1943 by Okamoto. He demonstrated that islets of Langerhans of many animals contained much zinc. Zinc has been found regularly within the islets of human, rabbits, dogs, mice, cats, ducks and

various fishes. (Mc Nany, Masko, Okamoto, Weitzd).

Therapeutic efficiency of certain medicinal plants along or in combination with other suitable medicines were also prescribed for diabetes by the ancient Indians. Avartaki

(Cassia auriculata Linn) Bimbi (Coccinia Indica W&A), Jambu (Eugeniajambolana Lam), Udumbara (Ficus glomerata R. Br.), Gudumara (Gymnemasylvestre R.B.r.), Karavellak (Momordica Charantia Linn), Nispava (Dilichos Linn) are few amongst them.



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NICAIH KHANANTYASURA ARUSRANAMIDAM MAHAT TADOSRAVASYA  
BHESAJAM TADA ROGAMANINASAT  
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