

## PRE & POST VEDIC PLANTS USED IN DIABETES- A DATA BASE STUDY

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The protean disease ‘Diabetes’ have an excellent and miracle history in its prevalence since the antiquity of human beings. The various references reflect about the using of plants for prevention and treatment of diabetes. The symptomatology of Diabetes mellitus is equivalent to disease ‘*Madhumeha*’ as described in Indian system of Medicine-*Ayurveda*. Similarly different *Vedas* also gives some clue about this disease in different nomenclature also. Keeping view in mind of having a miraculous inter-relation between the *Vedas* and *Ayurveda* since the both are science and deals with life of human being also, the present study attempts to rule out the utility of 3 medicinal plants e.g-. *Emblica officinalis* (L), *Curcuma longa* (L) & *Syzygium cumini*(L) from the Vedic era to Samhita (*Ayurvedic text*)era.

**Keywords:** *Veidc, pre-vedic, Emblica officinalis, Curcuma longa, Syzygium cumini*

### INTRODUCTION:

The history of Indian medicines reflects its development from vedic era to modern *Ayurvedic* pharmaceuticals (*Dravyaguna*) passing through *samhita* (*Ayurvedic* text) era. *Ayurveda*, the science of life, which has highly effective treatment for a number of tough diseases, also has effective and successful treatment for Diabetes Mellitus (*Madhumeha*).

The disease ‘Diabetes’ has been considered as one of the leading cause of death in the world. Its victims and non victims are always fighting to get rid from this disease adopting by different therapies. Herbal formulations play an important role in control-

ling many chronic health problems including Diabetes Mellitus. Ancient Indian literature incorporates a remarkably broad definition of medicinal plants and considers all plant parts to be potential sources of medicinal substances. Traditional medicinal practices have remained as a component of health care system of many societies in spite of the availability of well-established alternatives.

Diabetes / *Madhumeha* is a disease prevalent from the antiquity of mankind as it is mentioned in veda and *Ayurveda*.

Being a life science concerned texts ‘*Ayurveda*’ for the first time identified, Diagnosed and managed this disease. The disease

'*Madhumeha*' was considered as one of the '*Mahagada*'<sup>1</sup>(*Maha*+ *gada*) while the present scenario of Diabetes alarming the world as estimated to be increase double in numbers in 2030.

Diabetes is a disease syndrome characterized by disorder metabolism and abnormally high blood sugar caused by qualitative and quantitative deficiency of insulin.

The present medical era facing a crucial stage to control and prevent this disease even after discovering of insulin and other oral hypoglycemic agents.

The present study is designed to explore the importance of three commonly available medicinal plants i. e. *Emblica officinalis* (L)- *Amalki*, *Curcuma longa* (L)- *Haridra* & *Syzygium cumini* (L)-*Jaman* using from the pre vedic to post vedic eras .This study also attempts to screening the history of Diabetes from the time of Vedas.

#### **OBJECTIVES:**

To rule out the utility of traditionally used plants by ancient Indian Physician.

#### **HYPOTHESIS:**

Selected plants are more effective in control and prevention of Diabetes.

#### **MATERIALS & METHODS:**

In the present study the history of Diabetes as well as *Madhumeha* were studied for screening on Data based along with screening of 3 plants namely- *Emblica officinalis*(L) – *Amalki*, *Curcuma longa*(L) – *Haridra*, and *Syzygium cumini*(L) – *Jaman* mentioned in the Vedas and *Ayurveda* as antidiabetic plants. The inclusion criteria of this study were based on different Vedas and *Ayurveda* & traditional used and availabilities. The study covers from pre-vedic to post vedic periods. The present research work

engulf the vedic *Samhitas*, e.g- Atharva veda, Rig veda, Sam veda and Yajur veda along with *Ayurveda* related *samhitas*.

No doubt, there is miraculous inter relation between the Vedas and *Ayurveda* since the both are science and deals with life of human being also. The history of Indian medicines reflects its development from Vedic era to modern *Ayurvedic* pharmaceuticals (*Dravyaguna*) passing through *samhita*'s (*Ayurvedic* text) era.

It was revealed in turned over the leaf of texts of Indian medicines that *Ayurveda* mainly related with Atharva veda though the Vedas are found in incomplete description pertaining to medicinal text. During the post vedic period the term 'Upaveda' (applied knowledge) is used in traditional literature. In this work it has been found amples of references in concerned disease in different Vedas and *Ayurved Samhitas*.

#### **LITERARY REVIEW:**

##### **(A) Disease aspect:**

##### **Pre Vedic & Vedic period (4000B.C – 1000 B.C)**

The knowledge of the system of Diabetes Mellitus, as the history reveals, existed with the Indians since prehistoric age. Its earliest reference (1000B.C) *Ayurvedic* literature is found in mythological form where it is said to have originated by eating '*Habisha*' – a special food which used to be offered at the time of yagna organized by Dakshaprajapati. Of course *Ayurveda* recognized the disease *Madhumeha* right from the Vedic period.

The word '*Madhumeha*' is one type of *va-taja prameha* under 20 types of *prameha* (*pra*+ *meha*). '*Pra*' means excess in frequency & quantity and '*Meha*' means urination / watering which derives from the root

“*miha sechane*” by adding *iyu (pratyā)* - **Sabdakalpadruma**. So ‘*prameha*’ denotes the meaning of excess urination in frequency & quantity. The first and foremost Vedic references of *meha* found in *yakshma Nashana sukta* of Rig Veda<sup>2</sup>. The word ‘*Madhumeha*’ (*madhu*= honey+ *meha*) derived from the root “*manyante vishesanajayanti yeshmin*”.

#### **Meha: Derivation-**

1. *Mehayati chinchati mutra retamsi iti mehaha.*(Halayudha Kosha)

2. *Mehayati nutrayati iti arthaha.*<sup>3</sup>

The synonyms of *madhu* are *Kshudram, Kusumasavam, Makaranda, Makshikam, Jalam, Pusparaja, Kshiram* etc. and thus the disease *madhumeha* were expressed by others name instead of *madhumeha* in some vedic and Ayurvedic literature, e.g- *Kshaudrameha*.

So, *Madhumeha* is a disease where excretion of urine having the same quality of *Madhu* in its colour, test, smell & consistency- Madhavakara.

On the other hand it is a condition by name of *Madhumeha* while the afflicted individual passes sweet urine and inhibits sweeteners in the sweet mucous, blood, breathe etc. Sushruta narrated *Kshaudrameha* in place of *Madhumeha*. The synonyms of *Madhumeha* in ancient classics are *Ojameha* ( Caraka), *Kshudrameha* ( Sushruta), *Pushpameha* (Anjan Nidana) etc.

The evaluation of *Madhumeha* can be traced from Veda. In Atharva Veda (2500 B.C) there is description about ‘*Ashrava*’ meant for *Mutratisara* i.e- excessive urination. This syndromic disease can be compared with Diabetes. The commentators of vedic works- sayana & Kesavabhatta included *Mutravrava-* (Excessive urination) under *ashrava*<sup>4</sup>. Krambelkar (1961) interpreted

that the term ‘*Ashrava*’ is formed from the root *a+sr* meaning to flow. The description available in Atharva veda is considered as 1<sup>st</sup> ever on this topic & is mentioned in *kaushikasutra*. Noteworthy that the ancient physician aware of the presence of sugar in blood & urine- *Kaushikasutra*.

#### **In Samhita period:**

**Caraka samhita:** In Samhita period the disease *Madhumeha* (*Meha* viz a viz *Prameha*) has been explained its Aetiology, Pathology, Prodromal symptoms, clinical features, complications & therapeutic procedure by Caraka.<sup>5</sup>

**Sushruta Samhita:** Sushruta noted the *Madhumeha* as a transformed condition from *prameha* if one not treated *Madhumeha* at time<sup>6</sup>. He described its treatment in *Prameha Pidaka* chapter also<sup>7</sup>. Description of *Kshaudrameha* instead of *Madhumeha* is also found in this samhita<sup>8</sup>.

**Bagbhatta Samhita (A.H):** Bagbhatta described the leading causes of *Madhumeha* in Bagbhatta Samhita<sup>9</sup>.

**Harita Samhita:** Harita described 13 types of *prameha* in different nomenclature i.e- *Puyameha, Ghritameha* with its causes.

**Kashyap Samhita:** Kashyapa noted the disease *Prameha* as *Chirakari* similar to syndrome of Juvenile Diabetes mellitus in *vedana adhyaya* of Kashyap Samhita.

**Bhela Samhita:** Bhela described two types of *prameha* i.e- *Swayan akrita & Prakrita meha*.

#### **Medieval period (4<sup>th</sup> – 16<sup>th</sup> century)**

(Collection of thoughts of previous authors)

**Madhava Nidan:** Madhava repeatedly described the *Prameha / Madhumeha* as mentioned in Caraka, Sushruta, & Bagbhatta samhita<sup>10</sup>.

**Gayadasa:** He has noted a syndromic disease as *samaltva* of *mutra (avilamutrata)* is

due to the presence of *dushya* in *mutra* resembled with *prameha* in Nyaya Chandrika.<sup>11</sup>

**Chakrapani Dutta:** He described about the treatment of *Prameha* in his documentation during 321-296 B.C. Kautilya mentioned a method to produce diabetes in his book 'Arthasashtra'.

**Sarangadhar Samhita:** Sarangadhar mentioned 20 types of *prameha* with its poly herbal formulation.<sup>12</sup>

**Bhavaprakash:** He mentioned *prameha* / *Madhumeha* with new herbomineral preparation

**Yogaratanakara:** He explained *prameha*/ *Madhumeha* with respective treatment.

### (B) Plants aspect:

*Ayurveda*, the science of life, which has highly effective treatment for a number of tough diseases, also has effective and successful treatment for Diabetes Mellitus (*Madhumeha*). A detailed and accurate explanation about the different aspects of this, like aetiology (Causes), pathology (process of the disease), prodromatology (premonitory symptoms), symptomatology (signs and symptoms) and treatment including prognosis are explained vividly in almost all important treatises of *Ayurveda* like Caraka Samhita, Sushruta Samhita, Astanga Hridaya Madhava Nidana, Yogaratanakara, Sarangadhara Samhita and Bhavaprakash Nighantu. There are so many plants and herbs used for prevention & controlling of Diabetes (*Madhumeha*) mentioned in veda and *Ayurveda*. But in this work emphasis has been given on 3 plants namely *Emblica officinalis* (L), *Curcuma longa* (L) & *Syzygium cumini* (L).

### Plants used by-

#### *Amalki:*

Caraka and Sushruta have mentioned many indications along with Diabetes obtained

from the description given in different context of treatment.

Caraka gives 10 combinations of drugs to all the *Mehas* with *kapha* predominance diseases where the *Amalki* was included.

Sushruta mentioned that after proper *samsodhana* the patient should use *swarasa* of *Amalki* with *Haridra* powder and *Madhu*.

Bagbhatta explained 3 *Kwatha yogas* out of which *Amalki* is ingredient of *Patoladi yogas*. Along with *Haridra*, *Amalki* is indicated as the specific drugs of choice for diabetes.

*Amalki* and *Haridra* were considered as the best medicines for treating *prameha* in Astanga Hridaya while describing about *Agryasangraha* (group of best things) mentioned as *Nisha & Amalki*.<sup>13</sup>

*Amalki* is beneficial & effective in *Prameha* / *madhumeha* mentioned in Ayu. Pharmacopiea, i.e. Bhavaprakash Nighantu & Sarangadhara Samita.

#### *Jaman:*

*Jaman* found in the name of *YAMANA* / *YAMUN* in Rig veda.

Rig veda – *Syzygium cumini* (L) considered for Diabetes – a Panacea. Very beneficial when it mixed with water.

The *Ayurveda* & other traditional approaches had described antidiabetic potentials in more than 800 plants in India subcontinent. The plants commonly used by Tribes of Midnapur district are Banyan tree, Curry leaves, *Jaman* seeds & leaves, bittergourd & *Gurmur*. It reduces blood sugar & is very good in control of Diabetes due to its Glucosides, Jamboline & Ellagic acid.

#### *Haridra:*

Earlier description of curative properties of medicinal plants was found in Rig veda (2500-1800B.C).

Atharva veda mentioned about *Haridra* for controlling of *Ashrav*

Laxicons of Chakradutta & Vangasena (ancient treatise of *Ayurveda*) mentioned about turmeric in Diabetes.

Along with *Haridra*, *Amalki* is indicated as the specific drugs of choice for diabetes-Bagbhatta.

So many trial has been found as significant in Alloxan induced diabetes.

*Nishakawathwadi Kwath*, *Nisoseeradi Kwath*, *Pramehamihira Taila* & *Devadarvarista* are very effective in Diabetes of which *Haridra* is a Ingredient- Vedic preparation.

### RESULT AND DISCUSSION:

So many herbal drugs were prescribed by different Vedas and Samhitas for the prevention and treatment of diabetes as the disease is prevalent from the antiquity of mankind which may help the further researcher to reduce the global problem.

### CONCLUSION:

The present work was designed to study the pre & post vedic plants used in diabetes and overall assessment can be stated that the disease is prevalent from the pre-vedic to present era of *Ayurvedic pharmacopeia*. During this era the victims , non victims and the health providers used the selected 3 plants, i.e- *Emblica officinalis(L)* , *Curcuma longa(L)* and *Syzygium cumini(L)*.

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