

Review Article

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## CLINICAL AND DIAGNOSTIC STUDY OF MADHUMEHA W.S.R. TO DIABETES MELLITUS

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### ABSTRACT

Ayurveda is a natural health care system that originated in India since the beginning of civilization. It is described by Acharaya Charak that to achieve purushartha chatushtaya, Arogya is necessary. Ayurveda strongly emphasize on preventive and promotive aspects of health rather than curative. The concepts of Dincharya, Ritucharya, Sadvritta, and Achara Rasayana along with guidelines for healthy diet and lifestyle is well established in Ayurveda, but in current scenario, hardly any one follows it's a result, there is tremendous rise in lifestyle disorders as pandemics, Diabetes being most menacing among them. Diabetes is fourth leading cause of global death by disease. Type 2 DM is responsible for approximately 90% of cases. Therefore today's India called nation of DM. Madhumeha "Richman's disease", since Vedic period, is familiar to mankind. Madhumeha is a disease in which mutra (Urine) of the patient attains similar property like those of madhu (Honey). It is documented as one among the twenty obstinate urinary disorders i.e. Prameha. It is also explained that, when the other Prameha are left untreated, this lead to the condition called Madhumeha. So Madhumeha can also be considered as an advanced condition or stage of Prameha. Diabetes Mellitus is a chronic disorder of carbohydrate metabolism, marked by hyperglycemia and glycosuria and resulting from inadequate production or use of insulin. Traditionally, Madhumeha can be equated with diabetes mellitus, as many similarities in view of their causative factors, pathogenesis, signs and symptoms, classification, complications and also in the treatment has been found.

**INTRODUCTION:**

**CLASSIFICATION-**

Madhumeha It is a type of 20 types of prameha specially comes in vataj prameha said by Acharya.

NIRUKTI-MADHU+MEHA (vadhhyaka shabda sindhu), mehashu uchcha madhu eva madhura mehati, means meho me jo uchcha hai vahi madhumeha hai.

The test in which patients urine output is like as madhu also present of sweatiness in body is called as MADHUMEHA.

Diabetes is a metabolic group of disorders characterized by persistent hyperglycemia due to deficiency and/or diminished effectiveness of insulin there are derangement of carbohydrate protein and fat metabolism due

**According to American diabetes Association (1997), DM is classified into following type.**

**Type 1-**It accounts for 5-10% of all cases of DM. It is characterized by Absolute deficiency of insulin due to destruction of  $\beta$ - cells of pancreas. Eg-Immunemediated, Idiopathic.**Type-2**(Insulin resistance along with relative deficiency of insulin secretion)

**Other specific type-**Gestational DM (Onset or first recognition of glucose intolerance during pregnancy) .

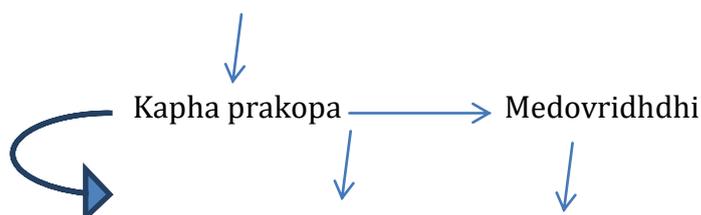
**According to Ashtanghridaya Nidan-**

Madhuram yachcha mehashu prayo madhviva mehati, sarveapi madhumehakhya madhuryachcha tanorapih, Mdhukshaudram tasya tulyam tadvarnam vamadhumeah(sha.s.7/62)

NIDANA-2 Type → Santarpana janya(Ahara&vihara)

→ Apatarpana janya (Ahara & vihara) Aasyasukham svapnasukham dadhini gramyaudakam anuparasah payaansi, Navannapaanam gudavaikritam cha pramehahetuh kaphakrichcha sarvam. Paryaaya-kshaudrameha, ojomeha, madhumeha Samprapti-

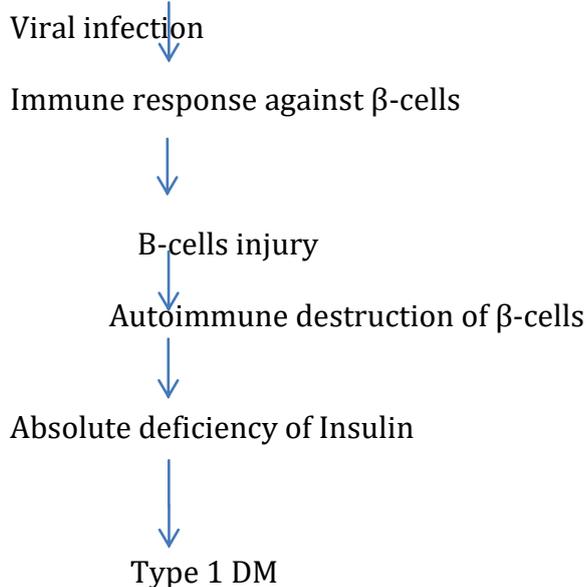
shleshma evam medavardhaka ahara and vihara





**PATHOGENESIS**

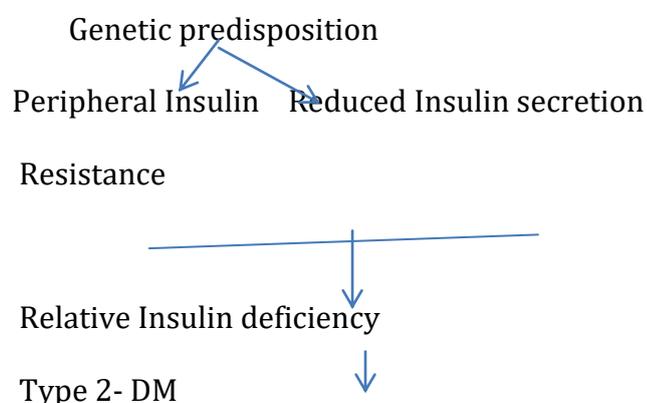
(HLA-linked genetic predisposition)



Type 2-DM-Most common form of DM. Comprising about 90-95% of all patients of DM this was previously called as (NIDDM), maturity onset DM, stable DM, ketosis resistance DM. It is characterized by Insulin resistance along with relative deficiency of Insulin secretion.

Type2 DM occurs more frequently in individuals with positive family history, obesity, hypertension, dyslipidemia, and lack of physical activity, pre-diabetic and gestational DM. Epidemiology-Type 2-DM is most common in certain racial groups like south Asians Africans, rising trends of Type 2 DM is due to increasing tendency towards obesity in urban populations coupled with high Caloric diet.

### Pathogenesis of Type 2 DM-



### Purvarupa-(PRE CLINICAL STAGE)

Kasha jatilya, Mukhamadurya , Karpaddaaha-Suptata, Mukha-Talu-Kantha-Shosh, Pipasa adhikya , Aalsya, Netra-Karna- Dantamala-Adhikya, Kesh-Nakhavridhdi, Sarvangasunyata, Shatapala pipilikamishch Shareeram, Mutre abhidhavanti pipilikashcha, Shayya asana swapna sukherati, Ghanangata, Dehachikkanata.

**Rupa** -Prabhuta-Mutrata Aavila –Mutrata Shareer Gaurava Vibandha ShareerJadyata

Akasmata Mutranirgam Kashaya- madhur- ruksha –Mutra

Pandur varna mutra

Mukha madhurya –shareer-Madhurya

Mutrabarambarata(Poly urea)

Trishna adhikya (Polydipsia)

Kshudhaadhikya(Poly phagia)

weakness.

### Typical feature of –DM

Fasting hyperglycemia Symptoms .due to marked hyperglycemia is polyuria, polydipsia, polyphagia weight loss,& blurred vision etc.

### Diagnosis of DM-

#### On the basis of clinical features

- by laboratory tests like as
- 1-fasting plasma glucose126mg/dl
  - 2 post pyramidal blood glucose200mg/dl
  - 3 -RBS 200mg/dl

#### Blood glucose value in normal individuals, prediabetes and DM-

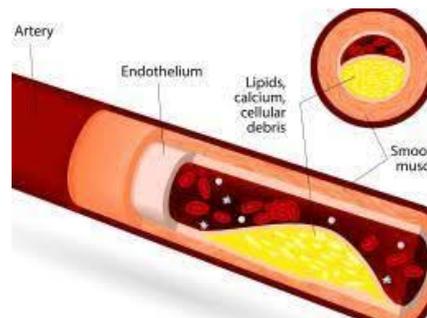
<b>Normal</b>	<b>Prediabetic</b>	<b>Diabetic</b>
<b>Fasting&lt;100mg/dl</b>	<b>100-125mg/dl</b>	<b>&gt;126mg/dl</b>
<b>PP &lt;140mg/dl</b>	<b>140-199mg/dl</b>	<b>&gt;200mg/dl</b>

#### DEFERENTIAL DIAGNOSIS (D/D)-

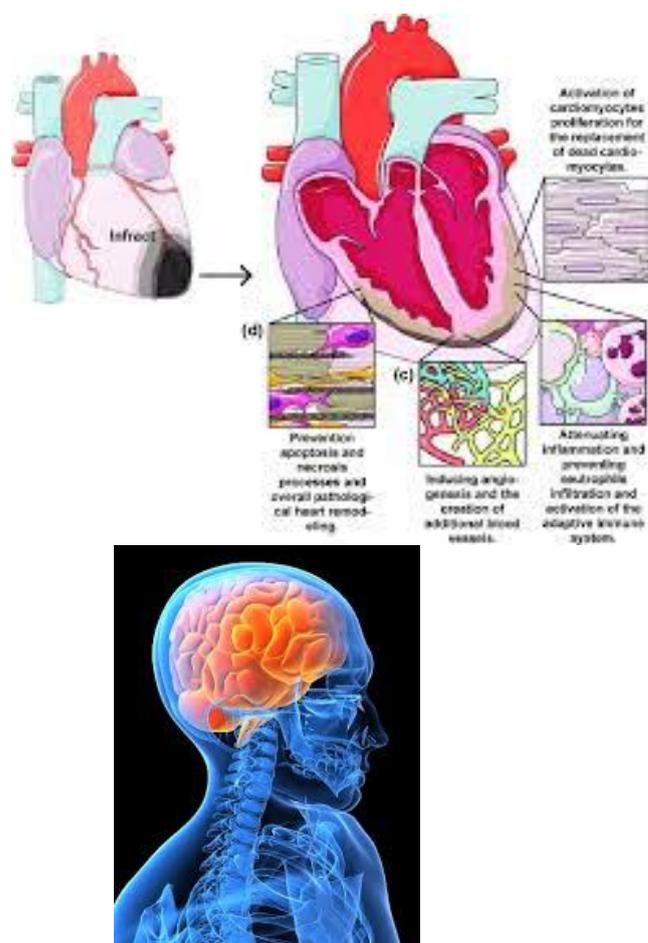
*Madhumeha/Ekshubalika rasameha/Sheetameha/Raktapitta*

*Haridravarṇam rudhiram cha mutra bina pramehasya hi purvarupaiḥ yo mutrayettam na badet prameham raktasya pittasya hi sa prakopakah (c. chi.6/54)*

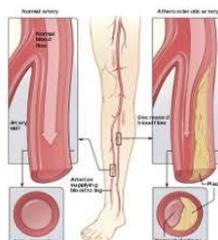
#### COMPLICATIONS /UPADRAVA -



**Long Term complication-Atherosclerosis**, (is a disease in which plaque builds up inside your arteries.) **IHD** (Coronary artery disease (CAD), also known as **ischemic heart disease (IHD)**, involves the reduction of blood flow to the heart muscle due to build up of plaque in the arteries of the heart.



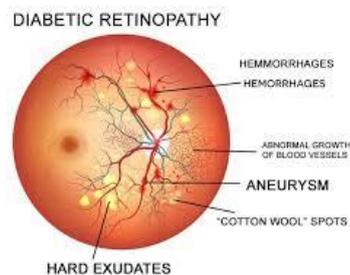
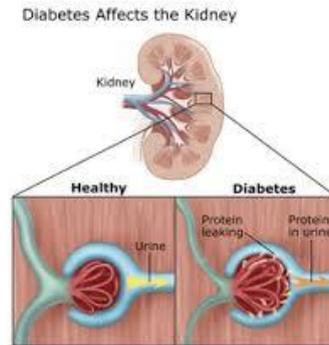
It is the most common of the cardiovascular diseases. **Cerebro-vascular disease**, (**Cerebrovascular disease** refers to a group of conditions that can lead to a cerebrovascular event, such as a stroke) **peripheral-vascular disease**, (**Peripheral artery disease (PAD)** is an abnormal narrowing of arteries other than those that supply the heart or brain)



**Micro-angiopathy(Nephropathy,retinopathy)-**

(**Microangiopathy** (or microvascular disease, or small vessel disease) is an **angiopathy** (i.e. disease of blood vessels) affecting small blood vessel in the body. It can be contrasted to macroangiopathy, or large vessel disease)

**Nephropathy** is the term used when the kidneys start to incur damage, which can ultimately lead to kidney failure



**Retinopathy** is any damage to the retina of the eyes, which may cause vision impairment.

**Acute metabolic complications**-Hyper osmolar hyper glyceamic state, diabetes Keto acidosis

Susceptibility to infections especially to skin, Respiratory tract and UTI

**Prediabetic**-Prediabetic is a state in which plasma glucose level is high than the normal but not high enough for diagnosis of DM. Studies have shown that majority of individuals with prediabetics developed type -2 DM within 10 years.

**Laboratory test to assess glycemc control**- There is a direct co relation between the degree of blood glucose control in DM (both type- 1&type- 2)and development of microangiopathic complication-eg Nephropathy etc.

Method – Periodic measurement of glycated haemoglobin (glycosylated Hb, HbA1c).

## CONCLUSION:

Madhumeha is considered as a subtype under the vatika type of prameha and it is characterized by passage of urine with sweat taste like honey along with sweatiness

of whole body with appropriate use of Ayurvedic preventive measures such as Dincharya Ritucharya Aharvidhi and therapeutic measures ( DM ) can be prevented .

In the disease view the DIABETES MELLITUS in relation to madhumeha has been dealt in details with the view of both Ayurvedic and Modern concepts. The complications of diabetes mellitus and their pathogenesis also been discussed. Thus clinical and diagnostic ways of Madhumeha is discussed.

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