

STUDY OF RAKTADOOSHTI IN COMPLICATIONS OF MADHUMEHA**Kaloge Smita Vinayak¹, Manjiri Sadanand Deshpande²**¹Assistant professor, Department Of Rog Nidan And Vikruti Vidnyana, S.M.B.T. College of Ayurved and Hospital, Nashik, Maharashtra, India²Associate Professor Department of Rog Nidan And Vikruti Vidnyan, Tilak Ayurveda College and Research centre, Rasta Peth, Pune, Maharashtra, India**ABSTRACT**

Madhumeha is subtype of *vataj prameha*. *Madhumeha* can be correlated with Diabetes Mellitus from modern science. Diabetes is expected to continue as major health problem owing to its serious complications. Hence study on complications of diabetes mellitus is necessary. Ayurveda classical texts also described *updravas* (complications) of *Madhumeha*. “*Rakta*” (blood) is one of the *dushya* in *madhumeha*. Many complications of *madhumeha* mentioned in Ayurveda and modern science and *raktadushti* (vitiation of blood) *lakshnas* (symptoms) described in ayurveda are same. This study of assessment of *raktadushti* in complications of *madhumeha* can be helpful to avoid complications and save the patients from hazardous effects.

Keywords: *Madhumeha*, *Updravas* (complications), *Raktadooshti*

INTRODUCTION

The aims of *ayurveda* are both to improve the quality of life and increase its span. Its major emphasis is on prevention of disease and promotion of health¹. Ayurveda samhitas described many diseases in details, “*Prameha*” is one of them. It finds place in eight ‘*Mahagada*’ (Major life treating disease).² All types of *pramehas* if not treated properly ultimately turns into ‘*Madhumeha*’.³

Madhumeha is subtype of *vataj prameha*. *Madhumeha* can be correlated with Diabetes Mellitus from modern science. The term ‘Diabetes’ is derived from greek word “Siphon like”. Latin meaning of this term is “Honey”. Mellitus being a Latin word “Sweetened with honey” and refers to the presence of sugar in blood and urine.

Diabetes is expected to continue as major health problem owing to its serious complications. There is lack of awareness

in society about DM and its complications. Hence study on complications of diabetes mellitus is necessary. In pathology of diabetes there is a long standing metabolic derangement leads to development of clinical complications significantly affecting major systems of human body⁴. Ayurveda classical texts also described *updravas* (complications) of *Madhumeha*. It emphasise about *updravas* of *madhumeha* such as *Putimansapida-ka*, *shaithilya*, *murcha* etc⁵. Complications of diabetes includes retinopathy with potential vision loss, nephropathy leading to risk of renal failure, Peripheral neuropathy causing gastrointestinal, genitourinary and cardiovascular symptoms and sexual dysfunction. Thus complications of DM are more harmful to patients, therefore study of complications is very important.

“*Rakta*” (blood) is one of the *dushya* in *madhumeha*⁶. Many complica-

tions of *madhumeha* mentioned in Ayurveda and modern science and *raktadushti* (vitiation of blood) *lakshnas* (symptoms) described in ayurveda are same. Dalhanacharya also explained that for pathogenesis of any *updrava* of *madhumeha raktadushti* is must .⁷ if we have gone through previous studies on *madhumeha* it is observed that maximum research work has been concentrated especially on *medodushti* (vitiation of lipids.).But in pathogenesis of *madhumeha* and its complications *rakta dhatu* which comes prior to *meda* has much importance.

Now a days, so many modern techniques have been developed for the diagnosis. Various pathological findings can help to assess severity of *raktadooshti* in pathogenesis of *madhumeha* and its complications. This article presents the clinical work held at Tilak Ayurveda College, Pune to study the *Raktadooshti* in complications of *madhumeha*. This study of assessment of *raktadushti* in complications of *madhumeha* can be helpful to avoid complications and save the patients from hazardous effects.

AIMS AND OBJECTIVES

- 1) To study complications of *madhumeha*.
- 2) To study the *raktadushti* and *anshansh kalpana* (micro study) of *raktadushti* in *madhumeha* and its complication with the help of findings of *Raktadushti lakshnas* described in ayurveda and laboratory pathological investigations.

MATERIAL AND METHODS

MATERIAL

- Sample size: 50 patients of *madhumeha* with complications
 - Source: Tarachand Hospital, Pune
- Following materials were used for pathological investigations of the patients:
- Kits with Reagents.

- Ranbaxy Glucose reagent
- a) Sulphosalisilic acid – chem supplier
- b) Benedict's reagent
- c) Sulphur powder- chem supplier
- d) PH strips
- e) Ranbaxy Cholesterol reagent
- f) Ranbaxy Triglyceride reagent
- h) Ranbaxy HDL reagent
- i) Cyanomethaemoglobin- Ranbaxy

Instruments

- 1) Test Tubes.
- 2) Pipette
- 3) Centrifuge machine
- 4) Analyser
- 5) Incubator

METHOD:

• Inclusion Criteria :

Patients of *Madhumeha* with complication irrespective of age, sex, marital status, economical status and social status were selected for study.

- **Exclusion Criteria:-** 1) HIV positive patients 2) HBsAg positive patients.
- All the details of patients were noted down thoroughly on specially prepared case report formate for the study. Then laboratory pathological investigation: BSL F/P, Haemogram, ESR, Blood Urea, Serum Creatinine, Urine R/M were done on the next day of clinical examinations of patient.
- Comparative study of nature of complications described in ayurveda and modern medicine was done. Also assessment of *Raktadushti* was performed with the help of pathological finding and *Raktadushti lakshanas* described in different ayurved classics.
- Comparison of *Raktadooshti lakshnas* in text and *Updravas* observed in patients was done.

OBSERVATIONS AND RESULTS:

Total 50 patients were studied during this study. Clinical and other findings obtained from them are presented as follows :

mon for **Raktadooshti** and **Madhumeha** Observed in patients.⁸

Table No. 1- Showing distribution of Hetusevana (Causative factors) Com-

Sr. No.	Hetu	Total	Percentage (%) (n =50)
1	Navannapann sevana (new grains)	47	94%
2	Mandakdadhi (Curd)	39	78%
3	Kashay(Katu tik-ta(bitter)	34	68%
4	Gramya Ahar sevana	26	52%
5	Aqudak anoop mansa sevana(fish)	26	52%
6	Dravannpan sevana (consumption of liquid diet)	20	40%
7	Sura sevana (Alcohol consumption)	18	36%
8	Avyayam (lack of exercise)	35	70%
9	Diwa swapanam (Day time sleep)	32	64%

Table No. 2- Showing distribution of updravas in patients⁹

Sr. No.	Updravas	Total	Percentage (%) (n =50)
1	Daurblya (weakness)	10	20%
2	Trishana(excess thirst)	39	78%
3	Arochak(testlessness)	24	48%
4	Avipak (indigestion)	24	48%
5	Jwara (fever)	17	34%
6	Daha(Burning)	22	44%
7	Putimanspidaka(Rash with Pus)	09	18%
8	Vidradhi(Abcess)	03	6%
9	Alaji (Redish Rash)	01	6%
10	Atisara(Diarrhoea)	07	2%

Table No. 3- Complications of Diabetes mellitus Observed in Patients¹⁰:

Sr.No.	Complications	Total	Percentage (%) (n =50)
1	Metabolic changes	20	40
2	Skin disease	11	22
3	Diabetic neuropathy	20	40
	a) Ptosis	2	4
	b) Distal symmetrical neuropathy	8	16

	c) Thoracolumber neuropathy	2	4
	d) Compressive neuropathy	2	4
	e) Diabetic autonomic neuropathy.	2	4
	f) All joint pain, swelling, loss of movement	4	8
4	Diabetic foot syndrome	8	16
5	Heart disease	10	20
	a) IHD	7	14
	b) CCF	3	6
6	Diabetic nephropathy	3	6
7	Diabetic Retinopathy	4	8
8	CVA	4	8
9	Atherosclerosis	2	4
10	Abscess	2	4
11	Frozen shoulder	1	2

• **STATISTICAL ANALYSIS :**

X^2 test is used for statistical analysis of data which show significance of presence of *raktadooshti* in maximum complications of *madhumeha*.¹¹

DISCUSSION

- 1) Maximum no of patients i.e. 90% were found after the age of 40 yrs as the onset of diabetes mellitus type II is at the middle age. This may be related to chronicity of Hetusevan and prolonged time for manifestation of disease.
- 2) Among all above hetus *Navannapan, mandakdadhi, gramya ahar and anoop audak mansa* are also responsible for *Raktadushti* as stated in all samhitas.¹² (Ref. Su. Su. 45/55-67). While milk products are responsible for vitiation of *kapha dosha, Dravannpan* which was present in 40% patients vitiates *rakta* by increasing aquatic nature of *rakta*.
- 3) In this study *Trushna, Shaithilya, Arochak, Avipak, Daha, jwara*, are the *updravas* of *madhumeha* present in maximum number of patients¹⁴. These *updravas* also described as *raktadooshti lakshnas* in Ayurveda, Thus it suggests that *raktadooshti* is must for pathogenesis of above *updravas* of *prameha*.¹⁵

- 4) The diabetic patients develop raised level of glycated haemoglobin which yields comparatively less amount of oxygen (hypoxia). Thus patients show air hunger or dyspnoea after exertion i.e. *Shwas* as complication.
- 5) Maximum patients showed complications like metabolic changes, Skin disease, Diabetic neuropathy, Diabetic foot syndrome, Ischemic heart disease and Retinopathy. The symptoms of all above complications shows much similarities with *raktadooshti lakshnas* which indicates importance of *raktadooshti* in pathogenesis of complications of *madhumeha*.¹⁶
- 6) All metabolic activities need blood as medium hence all metabolic disorders due to DM are because of vitiation of blood.
- 7) According to Ayurved pathogenesis of all skin diseases vitiation of *Rakta* is must.¹⁷
- 8) Pathogenesis of Diabetic neuropathy, Diabetic foot syndrome, Ischemic heart disease and Retinopathy is not possible without vitiation of blood which suggests importance of *raktadooshti* in

pathogenesis of complications of DM.¹⁸

CONCLUSION

- *Madhumeha* is disease characterized by *prabhoot, avil mootrata, Tanu madhurya* and *mootra madhurya*.
- About 60% patients had diagnosed with the complication of *madhumeha*.
- Obese patients are more prone for developing complications.
- *Raktadushti* is must for developing complications such as *putimansapida-ka, Vidradhi, aruchi, avipak, Trishna, Daaha, Amlika, Jwara, shosha, Murcha, Daurbalya, Kampa* and *Panduroga*.¹⁷
- *Raktadushti* is also indirectly responsible for developing complications such as *shwasa, mansopachay, Hrudishula, Hrudgraha* and *makshikoupsarpan*.
- Patients having all above complications have uncontrolled hyperglycemia and dislipidemia.
- Statistical analysis shows *Raktadushti* is significantly present in development of complications Neuropathy, Nephropathy, Retinopathy, skin diseases, metabolic changes and diabetic foot syndrome.
- Patients of nephropathy and retinopathy show albuminuria since 5-8 years persistently.

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