

STUDY OF PRAMEHA UPDRAVA W.S.R. TO BASTI WITH THE HELP OF MICROALBUMINURIA

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ABSTRACT

Prameha is one of the *asta mahagada*. *Prameha* is an *anushangi vikara*. Progression of *prameha* may affect all the 10 *dushyas* and lead to *upadrava*. From *nidanato arishtalakshana* many features of *prameha* simulates with the disease *Diabetes mellitus*. *Diabetes mellitus* has become one of the most dreadful diseases of the present time with its very harmful effects on the body due to its complications. In *Diabetic nephropathy* there will be leak of more albumin due to chronic kidney damage and is called as *micro-albuminuria*. In chronic and persisting *prameha*, *ojovimsrama* and *ojokshaya* worsens the condition. *Prameha* (*Diabetes Mellitus*) is a *Kapha pradhanaTridoshaja Vyadhi* in which *Meda* is a *PradhanaDushya*. *Prameha* is a *Chirakaaleena Vyadhi*. *Upadrava* (complication) is an episode of a morbid event which develops by the factors which are responsible for the manifestation of main disease. The *upadravatmaklakshana* related with *basti* has been described in *prameha pittajauupdrava* which is confirmed by continuous presence of abnormal *kleda* in *mutrashaya* resulting in poor prognosis. For the purpose of study, this can be compared with *Microalbuminuria* i.e presence of albumin in urine in early stage.

In this study attempt has been made to diagnose and thus prevent *bastiavayava* related *updrava* at a nascent stage.

Keywords: Ayurveda, *Prameha*, *Upadrava*, *basti*, *microalbuminuria*.

INTRODUCTION: The word *Prameha* is derived from “*Pra*” which means ‘*Prakarshen*’ i.e. frequency and *Miha*” means *sechne* i.e. irrigating in drops manner. *Prameha*¹ is general name for urinary disease. It is a condition characterized by excessive excretion of urine and turbid urine. It is one of the *asta mahagada*². it may affect all the 10 *dushyas*³. *Prameha* has been described as *chirkalinvyadhi* with multiple *updravas* causing significant morbidity. “*Prabhutavilmutrata*” is a cardinal feature. *Prameha* bears maximum similarity with *diabetes mellitus* respect to causes, symptom and complications. Currently there is alarming rise in prevalence of *diabetes* affecting every aspect of body and life. From *nidan* to *arishtalakshana* many features of *prameha*

simulates with the disease *Diabetes Mellitus*⁴. *Diabetes mellitus* is a group of metabolic disease characterized by hyperglycemia with disturbances of carbohydrate, fats, protein metabolism resulting from defects in insulin secretion, insulin action or both. The chronic hyperglycemia of diabetes is associated with long term damage, dysfunction, and failure of various organs. Long term complications of diabetes include retinopathy, nephropathy and neuropathy. Progression of *prameha* may affect all the *dashadushyas* and leads to *updravas*⁵. *Updravas* (complications) is an episode of a morbid event which develops by the factors which are responsible for the manifestation of main disease. vivid description of signs, symptoms and *updravas* of *prameha* has been given by

the classical text. The *upadravatmaklakshana* related with *basti* has been described in *prameha pittajaupdrava*⁶ which is confirmed by continuous presence of abnormal *kleda*⁷ in *mutrashaya* resulting in poor prognosis. For the purpose of study, this can be compared with Microalbuminuria⁸ i.e presence of albumin in urine in early stage.

India has the distinction of having the largest number of diabetes in the world. WHO reported that 124.7 million diabetic patients were in India in year 1997 and this toll would reach to 299.1 million by year 2025. India has the distinction of having largest number of diabetics in the world followed by China. The factors like sedentary lifestyle, earlier age of onset, delayed diagnosis and improper care lead to an increase in morbidity of diabetes and related complications like ulcer, nephropathy, retinopathy etc and even mortality.

Vivid description of signs and symptoms of *prameha* and its *upadrava* are seen in Ayurveda Classics. The description of *Bastiupadrava* is not directly mentioned. However, continued presence of abnormal *kleda* in *mutrashaya* results in poor prognosis⁵.

Hence an attempt will be made to understand the bastidusthi(bastitoda) laxana as updrava with the help of presence of microalbuminuria.

Micro albuminuria occurs when the kidney leaks small amount of albumin into the urine. Presence of microalbuminuria is important for detecting the kidney damage. So in our study an attempt will be made to diagnose kidney damage in *prameha* patients in early stage and to preserve kidney function over the longer term by the necessary management. Early diagnosis, treatment & management may

prevent the possibility of such conditions. Hence this study may also help to decide the prognosis of the disease.

AIM:

"Study of *Prameha updravas* w.s.r. to *basti* with the help of *microalbuminuria*"

OBJECTIVE:

- Study of *prameha updravas* w.s.r. to *bastitoda* in relation to *kleda and mutra*.
- To study the role of presence of *microalbuminuria* in *prameha vyadhi* w.s.r. to *bastiupdrava(bastitoda)* with possible correlation with diabetic nephropathy.

REVIEW OF LITERATURE:

1) Description of *Prameha* is explained as *nidana*, *purvarupa*, *rupa*, *upshaya* and *samprapti* in *Charaka Samhita*⁹, *Sushruta Samhita*¹⁰ and *Ashtanga Hridaya*¹¹. Information about *dustakleda* is given in *charakasamhita*.

2) Description of diabetes mellitus as a group of diseases that have in common *hyperglycemia* caused by some fault in the production and utilization of insulin and its complications¹² such as Diabetic nephropathy, neuropathy, retinopathy, skin lesions, diabetic ulcers, atherosclerosis etc.

(3)Charakasamhita: He has given the detail description of the etiology, pathogenesis, symptomatology & complications in *Nidana* 4th and *chikitsa* 6th chapter. While in *sutra sthana* 17th chapter he described the *avaranajanya* pathogenesis of *Madhumeha*.

(4) SusrutaSamhita: Acharya Susruta has given elaborate explanations regarding *NidanPanchaka* in *Madhumeha* in the *prameha adhyaya*. He used 'Ksaudrameha' synonym to *Madhumeha* in *Nidana* 6th chapter. Sushrut samhita mentioned the involvement of urinary system i.e. *mootravaha srotas* in the

pathogenesis of *prameha* in detail. He also pointed that all types of *prameha* may terminate into *madhumeha* if neglected.

(5) Vaghbata: vagbhata has explained *prameha* in *nidan* 10th chapter and *chikitsa* 12th chapter. The vagbhata also described *madhumeha* in which patient passes urine having resemblance with *madhu* and there is sweetness in body.

Whole body is sweet “*madhurayaschya Tanorata*”.

Upadravameans which manifest after genesis of main disease. When the disease is not treated properly and indulging in the same *nidana*, in the *vyakta* stage of the disease, *upadrava* manifests. It is called as *upa-drava* because it occurs after the manifestation of disease.

Specific Characteristics of *Upadrava*

- 1) These generally subside once the main disease is cured.
- 2) It modifies the course of the disease leading to worse condition because it is manifested in the patient, who is already debilitated due to affliction by main disease.
- 3) ***Rogamadhyakalaja*** It means *upadrava*'s manifests in the course of disease after the actual symptoms. Here one can observe difference between *lakshana* and *upadrava*. *Lakshanas* of the disease are which manifests early and the latter one manifest after the *lakshanas*, so *upadravas* are known as *roguttarakalaja*.
- 4) It is mentioned as ***Rogasraya*** because the manifestation of *upadravaneeds* the *Doshas* which were responsible for origin of main disease i.e the cause

Kaphaj Meha Upadrav :

Sr.No	Name	Su/YR	AH/BP	AS
1	<i>Avipaka</i>	+	+	+
2	<i>Aruchi</i>	+	+	+
3	<i>Chardi</i>	+	+	+

of *upadrava* and *vyadhi* are same.

5) Upadrava 's should be treated immediately because due to the main disease patient becomes *dhurbala*, if he develops *upadravameans* he further loses strength in turn it is more difficult to treat. Therefore *updravas* (complications) have same importance as disease. Direct explanation of the *upadrava* is not available in the texts. But Acharya Charaka while explaining *visaparachikitsa* explains two types of *updravas*¹³, which can be considered for all the diseases on the basis of *Pradesha Tantrayukti*.

Updravas can be broadly classified into

1) *Samanya Updravas*

2) *Vishishta Updravas*

Based on severity it is of two types:

1) *Sthoola*

2) *Anu*

1. Sthoola: If the disease having more in number and severe (in stage) complications then it is known as *sthoolaupadrava*.

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2. Anu: If the disease having less in number and less severe complications then it is known as *anuupadrava Samanya Updravas*:

Vishishta Updravas:

Acharya Sushruta and Vaghbhat mentioned the *updravas* for each *dosha*. Acharya Yogratinakar and Bhavaprakash followed the Sushruta and Vaghbhat

4	<i>Nidradhikya</i>	+	+	+
5	<i>Kasa</i>	+	+	+
6	<i>Peenasa</i>	-	+	-
7	<i>Alasya</i>	+	-	-
8	<i>Makshikopasarpan</i>	+	-	-
9	<i>Mamsopachya</i>	+	-	-
10	<i>Pratishyay</i>	+	-	+
11	<i>Shaithilya</i>	+	-	+
12	<i>Kaphpraseka</i>	+	-	-
13	<i>Shwas</i>	+	-	-
14	<i>Praseka</i>	-	-	+

Pittaja Pameha Upadravas

Sr.No	Name	Su/YR	AH/BP	AS
1	<i>Bastimehantoda</i>	+	+	+
2	<i>Mushkavadaran</i>	+	+	+
3	<i>Jwara</i>	+	+	+
4	<i>Daha</i>	+	+	+
5	<i>Trishna</i>	+	+	+
6	<i>Murcha</i>	+	+	+
7	<i>Vidbheda</i>	+	+	+
8	<i>Bastibheda</i>	+	-	-
9	<i>Arochaka</i>	+	-	-
10	<i>Vamathu</i>	+	-	-
11	<i>Nidranash</i>	+	-	-
12	<i>Panduroga</i>	+	-	+
13	<i>Peetavinmutra</i>	+	-	-
14	<i>Hritshula</i>	+	-	-
15	<i>Paridhumay</i>	+	-	-
16	<i>Amlodgar</i>	+	-	+

Vataja meha Upadravas:

Sr.No	Name	Su/YR	AH/BP	AS
1	<i>Udavarta</i>	-	+	-
2	<i>Kampa</i>	+	+	+
3	<i>Hridgraha</i>	+	+	+
4	<i>Shosha</i>	-	+	+
5	<i>Kasa</i>	-	+	+
6	<i>Shwasa</i>	-	+	+
7	<i>Stambha</i>	+	-	-
8	<i>Shula</i>	+	+	+
9	<i>BaddhaPureesh</i>	+	-	+
10	<i>Rasalolupta</i>	+	-	+

11	Nidranash	+	-	+
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Materials and Methods:

Ayurvedic as well as modern literature resources were referred.

60 patients of *prameha* diagnosed clinically and with the help of laboratory test presenting with *bastitoda updrava* were considered.

Urine sample (24 hr) for microalbumin, urine fasting, urine post prandial

Type of Study: Open Observational study

Sample Size: 60 Patients

Study Centre: Y.M.T. Ayurvedic college and hospital P.G.institute, Kharghar,Navi mumbai.

INCLUSION CRITERIA

Age: 20-70 years.

Sex: Irrespective of gender.

Prameha patients with *updrava(bastitoda)*.

EXCLUSION CRITERIA

Major diseases like TB, IHD associated with *prameha* patients.

Patients with corticosteroid therapy.

Juvenile diabetic patients.

Other complications of *prameha* like keto acidosis, retinopathy, skin disease etc.

Criteria for assessment:

Subjective parameter: Assessment of *Bastitodalakshana*:

Bastitoda	Frequency	Pain
Mild	Less	Can be tolerated
Moderate	Increase	Can or cannot be tolerated depending upon blood sugar level
Severe	Increases to the extend that it effects QOL (quality of life)	Cannot be bearable

Objective parameters:

Investigation :

- 1) Blood sugar fasting.
- 2) Blood sugar post prandial.
- 3) Urine sugar fasting.
- 4) Urine sugar post prandial.
- 5) Urine routine
- 6) RFT.
- 7) Microalbuminuria.

Criteria score for Microalbuminuria:

Criteria	Value	Score
Normal	<20mg/L	0
Mild	20-100mg/L	1
Moderate	100-200mg/L	2
Severe	>200mg/L	3

Table: Clinical Characteristics of Patients with Type I and Type II Diabetes

Feature	Type I	Type II
Age at onset	Usually <20 yr	Usually >30 yr
Body mass	Low (wasted) to Normal	Obese
Plasma insulin	Low or absent	Normal to high initially
	Plasma	
Glucagon	High, can be suppressed	High, resistant to suppression

Glucose		Increased	Increased
Insulin			
Sensitivity		Normal	Reduced
Therapy	Insulin	Weight loss	thiazolidinedione sulfonylureas, insulin

DISCUSSION:

On the basis of my research work and observation following aspects were concluded:

Age: In the present study of sixty patients maximum number of patients were found in age group 50-60 years (44%) followed by age group 40-50 years (19%) and 20-30 years (25%) respectively. Thus maximum no of patients were found after the age of 40 years as the onset of diabetes mellitus type II is at the middle age.

50% of patients presented with *trishnadhikya*, followed by 48% with *prabutavilmutrata*. This concurs with clinical features of diabetic mellitus.

42% of patients reported *daurbalya* as *updrava* due to *dhatukshaya*.

Chronicity of prameha did not influence level of microalbuminuria if blood sugar level is controlled and managed adequately.

33 patients in group of controlled blood sugar reported with normal levels of *microalbuminuria* and 1 patient had mild degree of *microalbuminuria* while in uncontrolled group 24 patients were found to have mild to severe degree of *microalbuminuria* and 2 subjects in uncontrolled group had normal levels thus further concreting the observation that levels can be managed effectively with adequate management of blood sugar.

CONCLUSION: In my study prevalence of *prabutavilmutrata*, *trishnadhikya* and *daurbalya* were seen to be present in maximum patients. In my study *Bastitodalakshan* does not indicate the

evidence of early diabetic nephropathy in all patients. But for prevention of diabetic nephropathy all patients having symptom *bastitoda* related with *mutravahasrotas* should be investigated for *microalbuminuria*. The chances of developing nephropathy is therefore independent of duration of diabetes "prameha", as clearly seen in this study that patients with short duration history but having uncontrolled blood sugar level presented *microalbuminuria* in urine whereas many with chronic history but controlled blood sugar levels did not show presence of *microalbuminuria* in urine. Thus from my research work I conclude that the presence of *microalbuminuria* is an early sign of diabetic nephropathy and *bastitoda* which is mentioned as *pittaj updrava* can be considered as the presenting primary symptom related with diabetic nephropathy.

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