

TO EVALUATE THE EFFICACY OF *SHIMSHAPATRA* COMPAIR WITH *SHIMSHAPAKANDSARA* IN *MADHUMEHA* W.S.R TO DIABETES MELLITUS

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ABSTRACT

Introduction – *Shimshapa* (*Dalbergia sisso* Roxb.) is a medium to large tree of about 25 meters high with grey-yellow trunk, longitudinal crack, and downcast twig. Diabetes mellitus Can be correlated with *Madhumeha* which is a type Of *Prameha* described in *Ayurveda*. **Material & methods**-A Clinical trial was carried out 40 Patients of *Madhumeha* aged 25 to 70 years with complaints Of *Prabhut mutrata*, *Avila mutrata*, *Karapadataala daha*, *Karapadasupti*. Who were registered from OPD of Government Ayurved Hospital, Vadodara. They were equally divided into two groups i.e. *Shimshapakandasara choorna* (Group A) and *Shimshapapatra choorna* (Group B) for 6 weeks in a dose of 3 gm twice daily with *ushnodak* before meal. The clinical assessment was carried out on the 45 th day and after that at 2 weeks interval by objective & subjective parameters and it was inferred that both *Shimshapakandasara choorna* and *Shimshapapatra choorna* were effective and reduced the symptoms of *Madhumeha*. **Results**-The study shows the effect of *Shimshapakandasara choorna* and *Shimshapapatra choorna*, which led to cure in 1(5.55%) in number and 5(27.78%) in number respectively, and maximum improvement in 9(50%) and 3(16.67%) patients affected with *Madhumeha* disease respectively. **Conclusion** - Both trial drugs, (Group A& Group B) give relief in the symptoms of *Madhumeha*. and both of the results get the near to same result.

KEYWORD: *Madhumeha*, *Prabhutmutrata*, *Shimshapakandasara Choorna*, *Shimshapapatra Choorna*.

INTRODUCTION

Shimshapa (*Dalbergia sissoo* Roxb.) is one among such type of tree. Heart wood of the drug *Shimshapa* is being widely used as a timber because of its durability and hardness. This is the reason that though it is being mentioned from the *Vedic kala* and therapeutic value have been mentioned from *Samhita kala*, people or even *Ayurvedic vaidyas* have neglected towards its therapeutic value. Therapeutic utility of *Shimshapa* was introduced during *Samhita kala* for the first time. *Shimshapa* also known as *sissam*, *sissoo*, *Drudh sara* etc.

Madhumeha roga is one among the *Mahagadas* in our classical textbooks like *Charaka samhita*.^[1] according to the Ayurvedic classics, the pathogenesis of *Prameha* is having the involvement of *kleda*^[2], while explaining the Diagnosis of *prameha*. it is said that, increased frequency of micturition & turbidity of the urine are the common characteristic features of the 20 types of *Prameha*.^[3]

According to *Sushruta Samhita*, *Shimshapa* (*Dalbergia*

sissoo Roxb.) is best medicine for *vasameha*^[4] and simply *mehahara* which is included in *muskakadigana*.^[5] both *Ashtanga Samgraha*^[6] And *Ashtanghridaya*^[7] also mentioned *shimshapa* as *mehahara* drug in *muskakadigana*. according to *bhavprakasha nighantu*, *shimshapa* is having *Katu*, *Tikta*, *Kasaya rasa*; *Guru*, *Pichchhila guna* and *Ushna veerya*.^[8]

Aim

This study was carried out to evaluate the efficacy of *Shimshapapatra choorna* in *Madhumeha*.

MATERIAL AND METHODS

Preparation of The Trial Drug

Botanically identified *Shimshapakandasara choorna* and *Shimshapapatra choorna* were collected from periphery of vadodara, gujarat all test drugs were washed and dried in shade for several days. These dried drugs were powdered with pulveriser and sieved through 120 size mesh. Both fine powders were collected and preserved in separate airtight containers.

Selection of Patients-40 Patients of *Madhumeha* With Age Of 25 To 70 Years Were Enrolled from OPD Of Government Ayurved Hospital, Vadodara. Detailed History, Complete General and Systematic Examination and Pathological Investigation Were Done.

Inclusion Criteria

Patients between age group of 25-70 years, Patients with classical sign and symptoms of *Madhumeha* like *Prabhuta mutrata*, *Aavila mutrata*, *Kara- pada daha*, *Trishna* and others.

Exclusion Criteria

Patients having age less than 25 years and more than 70 years, Patients suffering from IDDM, uncontrolled HTN, Drug induced or uncontrolled dyslipidemia, clinical features of CCF, Hypothyroidism Patient having systemic illness like tuberculosis, carcinoma and endocrine disorders or major illness like renal or liver disorder,

Assessment Scale

No change	Less than 25% changes in the sign and symptoms
Mild improvement	26-50% relief in the signs and symptoms
Moderate improvement	51-75% relief in the signs and symptoms
Marked improvement	76-99% relief in the signs and symptoms
Complete cure	100% relief in the signs and symptoms

OBSERVATION AND RESULTS

[Table 1] Status of 40 patients of *Madhumeha*.

Status	No. of Patients		Total	Percentage
	Group A	Group B		
Enrolle	22	18	40	100
Completed	18	18	36	90
Dropped out	4	0	4	10

In the present study total 40 patients were enrolled, in which 40 patient had completed their course and 4 were dropped out. [Table 1]

[Table 2] Chief complaints distribution and comparison in 40 patients of *Madhumeha*.

Main Symptoms	% Relief		SD		T	P	A vs B
	A	B	A	B			
<i>Prabhoota Mutrata</i>	57.21	64.52	0.0981	0.616	0.697	0.495	NS
<i>Aavila Mutrata</i>	70.4	71.14	0.518	0.516	0.622	0.542	NS
<i>Karpada Daha</i>	63.97	64.99	0.629	0.137	0.622	0.542	NS
<i>Karpada Supti</i>	82.08	72.95	0.414	0.485	-0.9	0.381	NS
<i>Kshudhadhikya</i>	97	66.59	0.458	0.493	-0.369	0.717	NS
<i>Pipasa</i>	43.68	60	0.65	0.514	-1.567	0.135	NS
<i>Daurbalya</i>	83.54	90.1	0.447	0.323	-1.844	0.083	NS

In this Study, It was found that, In *Prabhootamutrata* symptoms, 57.21 % by (Group-A) & 64.52% relief by (Group -B). In the same way, *Avila Mutrata* Symptoms, 70.4 % by (Group-A) & 71.14% relief by (Group -B). symptoms *Karapadataala Daha* 63.97 % by (Group-A) & 64.99% relief by (Group -B) , In symptoms *Karapadataala Supti* 82.08 % By (Group-A) & 72.95% relief By (Group -B) . In, *Kshudhadhikya* 97 % by

Pregnant & lactating women, Patients of Juvenile type of DM, Patient having terminal stage of the disease.

Thirty-six patients were randomly grouped into two groups with help of www.randomization.com. each group consisted of 18 patients and the groups were named as group A and B. they were administered with *shimshpapatra choorna* (Group B) and *shimshpa kandasara* (Group a) in a dose of 3 gms, respectively, twice daily with *ushnodaka* before meal for 6 weeks. all patients advised to follow specifically prescribed *ahara*, *dincharya*, and *rutucharya* as per classical ayurvedic texts and will be instructed to avoid the causes of *madhumeha* roga as per texts.

Investigations Done

Fasting Blood Sugar, Post Prandial Blood Sugar, Urine Sugar, Examination were done for each patient on the first and last day of the clinical trial.

(Group-A) & 66.59% relief by (Group -B). In, *Pipasa* 43.68 % by (Group-A) & 60% relief by (Group -B). In, *Daurbalya* 83.54% by (Group-A) & 90.1% relief by (Group -B). Result Is also achieved. [Table 2]

[Table 3] Associated complaints distribution and comparison in 40 patients of Madhumeha.

Main Symptoms	% Relief		SD		T	P	A vs B
	A	B	A	B			
<i>Shithilangta</i>	84.21	94.12	0.406	0.243	-4.61	<0.001	HS
<i>Asyamadhurya</i>	83	62.5	0.408	0.518	-0.809	0.43	NS
<i>Atisweda</i>	55	63.64	0.522	0.505	1.288	0.215	NS
<i>Visrashariragandha</i>	75	60	0.5	0.548	-3.344	0.004	S
<i>Tandra</i>	85	73	0.452	0.458	0	1	NS
<i>Klama</i>	87.5	88.24	0.376	0.332	-0.697	0.495	NS
<i>GalaTalu Shosha</i>	76	71.43	0.426	0.469	0.325	0.749	NS

In associated complaints, it was found that, in symptoms like *Shithilangta*, 84.21 % by (Group- A) & 94.12% relief by (Group -B). In, *Aasyamadhurata* 83 % by (Group-A) & 62.5% relief by (Group -B). In, *Atisweda* (55%) by (Group-A) & 63.64 % relief by (Group -B). In,

Visrashariragandha 75 % by (Group-A) & 60% relief by (Group -B). In, *Tandra* 85 % by (Group-A) & 73% relief by (Group -B). In, *Klama* 87.5 % By (Group-A) & 88.24% relief by (Group -B). In, *Gala Talushosha* 76% by (Group-A) & 71.43% relief by (Group -B). [Table3]

[Table No. 4] Effect of *Shimshapa kanda-sara choorna* & *Patra choorna* on FBS.

Group	'n'	Mean score		% of Relief	S.D. ±	S.E. ±	't'	P
		B.T.	A.T.					
A	18	175.167	166.611	4.88	57.1933	13.481	1.945	0.069
B	18	166.79	148.056	0.11	45.73	10.718	7.031	<0.001

This study shows that among *Shimshapa kand-sara choorna* and *Patra choorna*, the *Patra choorna* effects

high significantly (p < 0.001) on the FBS (0.11%).

[Table No 5] Effect of *Shimshapa kanda-sara choorna* & *Patra choorna* on PPBS.

Group	'n'	Mean score		% of Relief	S.D. ±	S.E. ±	't'	P
		B.T.	A.T.					
A	18	255.833	237.5	0.072	101.236	23.862	2.698	0.015
B	18	244.811	218.167	0.11	76.0745	17.931	3.944	0.001

This study shows that among *Shimshapa kand-sara choorna* and *patra choorna*, the *Patra choorna* effects

high significantly (p < 0.001) on the PPBS (0.11%).

[Table No. 6] Effect of *Shimshapa Kanda-Sara choorna* & *Patra choorna* on Weight.

Group	'n'	Mean score		% of Relief	S.D. ±	S.E. ±	't'	P
		B.T.	A.T.					
A	18	66.444	63.4444	0.045	7.422	1.749	5.05	<0.001
B	18	64.889	63.44	0.022	11.1473	2.627	5.111	<0.001

This study shows that among *Shimshapa Kand-sara Choorna* and *Patra Choorna*, both the *Kanda-sara* and

Patra Choorna effects high significantly (p < 0.001) on the weight (0.045%) and (0.022%) respectively.

[Table No. 7] Assesment of study.

Clinical Assessment	Group A		Group B	
	No. of Pts	Percentage	No. of Pts.	Percentage
Completely Cured	1	5.55	5	27.78
Marked improvement	9	50	3	16.67
Moderate improvement	3	16.67	8	44.44
Mild improvement	5	27.78	1	5.55
No change	00	00	1	5.55

After assessment, it was found that in Group A, 01(5.55%) patients were cured and 9 (50%) patients showed marked improvement, whereas in Group B 5

(27.78%), 3(16.67%) patients were in the stage of cure and marked improvement, respectively. Moderate improvement was noted 3 (16.67%) in Group A and

8(44.44%) in Group B in sign & symptoms in *Madhumeha*.

DISCUSSION

Madhumeha is known as a disease of *kapha* and *kleda* dominance mainly. and the other *dushyas* involved in the disease are also having *kapha* dominance like *rasa*, *mamsa*, *majja*, *udaka*, *lasika* etc. Since *Sushruta* has described a whole *gana* known as *mushkakadi gana* having drugs indicated for *meha*, *meda*, etc. which works mainly on *kapha* and *pitta* dominant diseases. and it includes the drug *shimshapa* in it too. Since *Shimshapa* has *katu*, *tikta*, *kashya rasa*, *ushna veerya*, *ruksha guna*, *katu vipaka* which will be the opposite of *kapha*. That's the reason why the patients had loss of weight but their built was not changed. And according to ayurveda the *kalpana* (form of medicine) is also very useful in the outcome of the results and since the main dominant *doshas* were *kapha* and mildly *pitta* the *drava gana* was dominant and hence the *choorna kalpana* was decided to be taken for the treatment.

CONCLUSION

Both medicines, (Group A & Group B) give relief in the symptoms of *Madhumeha*. and both of the results get the near to same result. so, on this study, it can be said that, *Shimshapa patra* can be used replace of *Shimshpa kandasara*.

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