

A COMPARATIVE STUDY OF VAMANA AND VIRECHANA IN MADHUMEHA W.S.R NIDDM TYPE-2

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ABSTRACT

Ayurveda advocates two kinds of treatment measures, namely *Samshodhana* and *Samshamana*. The vitiated *doshas*, which are eliminated from the *Urdhwamarga* i.e. by mouth is called *Vamana*, through *Adhomarga* (*guda*) is called *Virechana*. *Vamana* is indicated mainly for *kapha dosha* and *kapholbana samsargaja* or *sannipataja doshas*. *Virechana* is indicated for *pitta dosha*, *pitta samsargaja doshas*, *kapha* and *vata doshas*. Both *Vamana* and *Virechana* are the best treatment procedures for *kledanashana*, which is the key factor of *prameha samprapti*. In the modern system of medicine *Madhumeha* can be compared to Diabetes mellitus. In *Ayurveda* several treatment modalities are available to deal with the *Madhumeha*. Among these *Vamana* and *Virechana* have great importance in the treatment of *Sthoola* and *Balawan Madhumehi*.

Keywords: *Vamanakarma; Virechanakarma; Sthoola Madhumeha; Diabetes mellitus; Trikatu churna, Nimba taila, Ikshwaku beeja majja, Abhayadi Modaka.*

INTRODUCTION: *Vamana* is indicated mainly for *kapha dosha* and *kapholbana samsargaja* or *sannipataja doshas*. *Virechana* is indicated for *pitta dosha*, *pitta samsargaja doshas*, *kapha* and *vata doshas*¹. Both *Vamana* and *Virechana* are the best treatment procedures for *kledanashana*, which is the key factor of *prameha samprapti*². *Madhumeha* is a disease Known to mankind since Vedic period. The term “*meha*” is attributed to ‘*Madhumeha*’. And the word “*Madhumeha*” is applied to all “*prameha*”³. The *Sthoola Madhumeha* is due to *Kapha*, *Pitta* and *doshavaranajanya Vata* predominance. *Vataprakopa* is due to *avarana* caused, mainly by the vitiation of *kapha* and *Pitta*. In case of *sthoullya*; *kapha*, *meda* and *mootra vardhaka* factors are the main causes⁴. In modern system of medicine, *Madhumeha* can be compared to Diabetes mellitus,

which is known as “Richman’s disease” particularly, because a person who is able to enjoy the pleasure of life without any perceptible exercise is usually affected with this disease. The importance of over nutrition is shown by the fact that, above the age of 40 years, 80% of the people who suffer from Type-2 diabetes are considerably over weight. So obesity is the risk factor for the Diabetes mellitus and complications like Stroke, Ischemic heart disease, End stage renal disease, chronic infections etc may occur⁵.

Objectives of the study:

- 1) To evaluate the efficacy of *Vamana karma* in *Madhumeha*. (NIDDM Type-2)
- 2) To evaluate the efficacy of *Virechana Karma* in *Madhumeha*. (NIDDM Type-2)
- 3) To evaluate the comparative efficacy of *Vamana* and *Virechana* *karmas* in *Madhumeha*. (NIDDM Type-2).

METHOD

Research Design:

Comparative clinical trial was conducted. The patients were assigned in to 2 groups. Group-A—15 patients were received classical *Vamana karma*. Group-B—15 patients were received classical *Virechana karma*.

Source of Data:

Patients suffering from *Madhumeha* were selected from the OPD and IPD of Jayachamarajendra Institute of Indian Medicine Hospital (Teaching Hospital of G.A.M.C.) Bangalore -09.

Sample size & Grouping:

The sample size of 30 patients were taken for the study.

Group-A—15 patients received *Vamana karma*.

Group-B—15 patients received *Virechana karma*.

Diagnostic criteria:

The diagnosis of the disease *Madhumeha* is made according to signs and symptoms mentioned in Ayurvedic and Modern texts. These are as follows-

- *Prabhuta mutrata*
- *Avila mutrata*
- *Pipasa adhikya*
- *Hastapadatala daha*
- Increased levels of FBS & PPBS

Inclusion criteria:

Patients satisfying the following criteria were taken for study. They are –

- Obese diabetic patients having good physical strength.
- Patients having the history of disease up to 2 years.
- The patients between the age group of 25 to 65 years.
- FBS ranges from 110 mg/dl up to 250 mg/dl

- PPBS range from 140 mg/dl up to 300 mg/dl
- Patient fit for *Vamana* and *Virechana*.
- Patients with uncomplicated NIDDM TYPE 2.

Exclusion criteria:

If any of the following conditions were noted, such patients were excluded from the study. They are –

- IDDM type 1 and 2.
- Patients having the history of disease more than 2 years.
- Patients suffering with other systemic disorders.
- Patients unfit for *Vamana* and *Virechana karmas*.
- Patients below the age group of 25 years and above 65 years of age.
- Patients with complications of NIDDM type 2.

Plan of study:

Shodhana therapy is divided into *Poorvakarma*, *Pradhanakarma* and *Paschatkarma*.

Poorvakarma: For both *Vamana* and *Virechana* groups *Poorvakarma* is same. Following points were considered in *Poorvakarma*.

Deepana-pachana – *Trikatu churna* 3 gms, 3 times a day ½ hr before food, with hot water, till *nirama laskhanas* appears⁶.

Snehapana:

For *snehapana*, *Nimba taila*⁷ was selected. After attaining appropriate *niramata*, the *snehapana* was started with *Hruseeyasi matra* i.e. 30 ml and gradually increased according to *Agni* and *Koshta* till *na ati snigdha lakshanas* appears⁸.

Vishrama kala (Abhyanga and sweda):

As *sweda* is contraindicated in *Madhumeha*, the patients were administered with *abhynaga* and *sukoshna jala snana*. For *abhynaga moorchita tila*

taila was used. *Vishrama kala* for *Vamana* is 1 day and for *Virechana* is 3 days⁹.

Pradhana karma:

A) Vamana karma:

For Group-A patients, After 1 day *Vishrama kala*, patients were subjected to *Vamana* after assessing the status of patient's *koshta*, *bala*, etc. The medicine used was *Ikshwaku beeja majja yoga*¹⁰.

B) Virechana karma:

For Group-B patients, after 3 days *Vishrama kala*, patients were subjected to *Virechana* after assessing the status of patient's *koshta*, *bala*, etc. The medicine used was *Abhayadi Modaka*¹¹.

Paschat karma:

Samsarjana karma:

In both the groups, *Samsarjana krama* was performed depending upon the *Shuddhi*¹².

Follow up:

Follow up for one month. During this period, placebo capsules were given and patients were advised to follow the diet.

Investigations and Selection of Patients:

Subjective parameters:

The following parameters were taken for assessing the patient. They are –

1. *Prabhoota mootrata*
2. *Avila mootrata*
3. *Pipasadhikya*
4. *Kara-pada daha and suptata*

Objective parameters:

1. Fasting Blood Sugar
2. Post Prandial Blood Sugar
3. Fasting Urine Sugar
4. Post Prandial Urine Sugar

Method of assessment of Grading:

Grading of parameters:

The results were evaluated by observing subjective and objective parameters by grading method. The grading was done in the following manner.

Subjective parameters:

A) Prabhuta mutrata:

Frequency

- Grade: 0 – 3-5 times/day; 0 times/night
1 — 5-7 times/day; 1-2times/night
2 — 7-9 times/day; 3-4 times/night
3 -- >10 times/day; > 4 times/night

B) Avila mutrata:

- Grade: 0 – Clear 2 – Buffy
1 - Milky white 3 - Turbid

C) Pipasadhikya:

- Grade: 0 – Normal 2 – Moderately increased
1 – Slightly increased 3 - Severely increased

D) Kara-pada daha and Suptata:

- Grade: 0 – Absent 3 – Mild but continuous
1 – Occasional 4 – Severe and continuous

Objective Parameters:

01. FBS (Fasting blood sugar) –

- FBS levels (mg/dl),
Grade: 0 -110 & below
1 -111-150
2 -151-190
3 -191-230
4 -231-270

02. PPBS (Post Prandial blood sugar) –

- PPBS Levels (mg/dl),
Grade: 0 -140 & below
1 -141-180
2 -181-220
3 -221-260
4 -261-300

03. Urine sugar –

- Grade: 0- Nil/ Absent
1- 0.5 %
2- 1.0 %
3- 1.5 %
4- 2 % and above

Overall Assessment

The overall assessment of the study was performed by considering all the parameters of assessment and for that following method of overall grading was used.

01. **Good response** - Patients with 60% and above results by Considering all subjective and objective parameters.
02. **Moderate response** - Patients with 30% to 59% results, by considering all subjective and objective parameters.
03. **Poor response** - Patient with 1% to 29% of results by

considering all subjective and objective parameters.

04. **No response** - Patients with no change after considering all Subjects and Objective parameters.

OBSERVATIONS AND RESULTS

The effect of therapy on various parameters studied under two headings.

- A) Within the groups B) In between Groups

A) Statistical results within the groups:

Table No. 1: The Statistical results of Group-A (Vamana):

S.N.	Subjective Parameter	Mean	S.D	S.E	t-value	p-value	Remarks
1	Prabhoota mutrata	1.81	0.809	0.208	8.65	<0.001	H.S.
2	Avila mootrata	1.53	0.644	0.166	9.20	<0.001	H.S.
3	Pipasadhikya	1.67	0.49	0.126	13.20	<0.001	H.S.
4	Kara-pada datha & suptata	1.33	0.49	0.126	10.51	<0.001	H.S.
Objective parameter							
1	FBS	35.87	16.18	4.177	8.597	<0.001	H.S.
2	PPBS	75.67	33.46	8.639	8.76	<0.001	H.S.
3	F.U.Sugar	0.233	0.41	0.105	2.20	<0.05	S.
4	P.P.U.Sugar	0.60	0.507	0.130	4.527	<0.001	H.S.

Statistical conclusion:

Statistical Results within the group are calculated by using “One Tailed Paired T Test.”

- 1) All the subjective parameters shows highly significance, as p value is < 0.001.
- 2) The mean effect of *Prabhuta mutrata* before and after the treatment is high as compared with other parameters.
- 3) The mean effect of *Kara-pada datha & suptata* before and after the treatment is less as compared with other parameters.
- 4) The objective parameters FBS, PPBS and PP urine sugar shows highly significance as p value is < 0.001.
- 5) The objective parameter Fasting urine sugar shows significant change as p value is < 0.05.
- 6) The mean effect of P.P.B.Sugar before and after the treatment is high as compared with other parameters.
- 7) The mean effect of Fasting Urine Sugar before and after the treatment is less as compared with other parameters.

Table No. 2: The Statistical results of Virechana (Group-B):

S.N.	Subjective Parameter	Mean	S.D	S.E	t-value	p-value	Remarks
1	<i>Prabhoota mutrata</i>	1.73	0.46	0.118	10.69	< 0.001	H.S

2	Avila mootrata	1.53	0.52	0.134	11.42	<0.001	H.S
3	Pipasadhikya	1.87	0.52	0.134	13.92	<0.001	H.S
4	Kara-pada daha & suptata	2.21	0.56	0.144	15.21	<0.001	H.S
Objective parameter							
1	FBS	35.21	28.44	7.34	4.977	< 0.001	H.S
2	PPBS	88.60	34.84	8.99	9.85	< 0.001	H.S
3	F.U.Sugar	0.17	0.41	0.105	1.60	> 0.05	N.
4	P.P.U.Sugar	0.83	0.56	0.144	5.74	< 0.001	H.S

Statistical conclusion:

Statistical Results within the group are calculated by using “One Tailed Paired T Test.”

- 1) All the subjective parameters shows highly significance, as p value is < 0.001.
- 2) The mean effect of *Kara-pada daha & suptata* before and after the treatment is high as compared with other parameters.
- 3) The mean effect of *Avila mootrata* before and after the treatment is less as compared with other parameters.

- 4) The objective parameters FBS, PPBS and PP urine sugar show highly significance as p value is < 0.001.
- 5) The objective parameter Fasting urine sugar shows Non-significant change as p value is > 0.05.
- 6) The mean effect of P.P.B.Sugar before and after the treatment is high as compared with other parameters.
- 7) The mean effect of Fasting Urine Sugar before and after the treatment is less as compared with other parameters.

Table No. 3: Showing the comparative effect of Group-A & Group-B:

S. N.	Subjective Parameter	Gr.	Mean	S.D	S.E	t-value	p-value	Remarks
1	Prabhoota mutrata		1.81	0.809	0.208	0.323	> 0.05	N.S.
		B	1.73	0.46	0.118			
2	Avila mootrata	A	1.53	0.644	0.166	00	> 0.05	N.S.
		B	1.53	0.52	0.134			
3	Pipasadhikya	A	1.67	0.49	0.126	1.058	< 0.05	S.F.
		B	1.87	0.52	0.134			
4	Kara-pada daha& suptata	A	1.33	0.49	0.126	4.456	< 0.001	H.S.
		B	2.21	0.56	0.144			
Objective parameters								
1	F.B.S	A	35.87	16.18	4.177	0.075	> 0.05	N.S.
		B	35.21	28.44	7.34			
2	P.P.B.S	A	75.67	33.46	8.639	1.002	> 0.05	N.S.
		B	88.60	34.84	8.99			
3	F.U.Sugar	A	0.233	0.41	0.105	0.407	> 0.05	N.S.
		B	0.17	0.41	0.105			
4	P.P.U.Sugar	A	0.60	0.57	0.130	1.08	> 0.05	N.S.
		B	0.83	0.56	0.144			

Statistical conclusion:

To compare the Statistical Results in-between 2 Groups, the 'un-paired t'- test is used.

- 1) The Subjective parameter *Pipasadhikya* shows highly significance, as 'p<0.05'. By comparing the Mean, SD, SE of both the Groups, Group-B is more effective than Group-A in case of *Pipasadhikya*.
- 2) The Subjective parameter *Kara-pada daha & suptata* shows highly significance,

as 'p<0.001'. By comparing the Mean, SD, SE of both the Groups,

- 3) There is no statistically significant difference between Group-A and Group-B in case of remaining subjective and objective parameters.
- 4) Group-B is more effective than Group-A in case of *Kara-pada daha & suptata*.

OVER ALL ASSESSMENT

Table No. 4: The Overall Assessment.

Sl. No.	Assessment	No. of patients	%
01	Good response	21	70%
02	Moderate response	9	30%
03	Poor response	0	0%
04	No response	0	0%

Out of 30 patients, 21 patients (70%) got good response, 9 patients (30%) were responded moderately and no patients were responded as poor response and no response.

DISCUSSION

DISCUSSION ON TREATMENT RESULTS:

Vamana:

Parameters like *vegiki*, *antiki* and *laingiki* were noted by observing the procedure and interrogating with patient. In the present study 53.33% patients had 8 *Vegas*, 26.66% patients had 7 *vegas*. 20% patients had 6 *vegas*. *Maniki pareeksha* was not done in this study due to some technical difficulties.

Virechana

Parameters like *vegiki*, *antiki* and *laingiki* were noted by observing the procedure and interrogating with patient. In the present

study 73.33% patients had 16-20 *Vegas*, 26.66% patients had 10-15 *vegas*.

DISCUSSION ON RESULTS IN GROUP-A & IN GROUP-B:

In Group-A, out of 15 patients, 9 (60%) patients got good response and 6 (40%) patients were responded moderately, no patients were found as poor and no response.

In Group-B, out of 15 patients, 12 (80%) patients got good response and 3 (20%) patients were responded moderately, no patients were found as poor and no response.

Out of 30 patients, 21 patients (70%) got good response, 9 patients (30%) were responded moderately and no patients were responded as poor response and no response.

In Group-A, All the subjective parameters shows highly significance, as P value is <

0.001. The objective parameters FBS, PPBS and PP urine sugar shows highly significance as p value is < 0.001 . The objective parameter Fasting urine sugar shows significant change as p value is < 0.05 .

In Group-B, All the subjective parameters shows highly significance, as

P value is < 0.001 . The objective parameters FBS, PPBS and PP urine sugar shows highly significance as p value is < 0.001 . The objective parameter Fasting urine sugar shows non-significant change as p value is > 0.05 ; because of less sample size, parameter Fasting urine sugar shows statistically non-significant change. Statistical results In-between Group-A and Group-B; both the Groups are highly significant. There is no statistically significant difference between Group-A and Group-B in case of subjective and objective parameters except in case of *Pipasadhikya* and *Kara-Pada daha* and *Suptata*.

Group-B is more effective than Group-A in case of *Pipasadhikya* and *Kara-pada daha & suptata*. As *Virechana* is the best treatment for *pitta*. *Pipasadhikya* and *Kara-pada daha & suptata* shows *Pitta* predominance. That's why Group-B is more effective than Group-A in case of *Pipasadhikya* and *Kara-Pada daha* and *Suptata*.

CONCLUSION

- The disease *Madhumeha* is *Tridoshaja*. *Sthoola Madhumehi* will have *Kapha* predominance, *Pitta* predominance and *Vata* predominance due to *avarana*.
- *Bahu drava shleshma*, *Ati kleda* and *bahu abaddha dushya*'s play important role in the manifestation of *Madhumeha*.

- *Sthoola Madhumehi* comes under *Apathyanimittaja Prameha*. It can be correlated with NIDDM Type 2.

- *Vamana* and *Virechana* are *apatarpana* type of *chikitsa* and in *Madhumeha* successfully used for *Kledanashana*.

A close perusal of the observation and inference that can be drawn leads to the following conclusions –

1. *Vamana* and *Virechana* karmas are good and effective treatments in *Sthoola Madhumeha* and also showed the highly significant results.
2. In earlier case of *Sthoola Madhumeha*, classical *Vamana* and *Virechana karma* is proved to be most effective.
3. Compare to *Vamana*, *Virechana* is more effective in case of *Pitta* predominance.
4. Along with *Vamana* and *Virechana karmas*, administration of *pathya ahara viharas* will give more effect.

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