



REVIEW STUDY OF MANAGEMENT OF DIABETES MELLITUS WITH VIRECHANA KARMA (THERAPEUTIC PURGATION)

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ABSTRACT

Changing life style, lack of exercise, fast foods, improper unbalanced diet, and sedentary lifestyle has lead to the outbreak of Life style disorders. Among them Diabetes mellitus is an endocrinal and/or metabolic disorder with an increasing global prevalence and incidence. Bio-purification (*Panchkarma*) therapy is well known procedure for its Excellency to cure and prevent the disease from the root cause. Due to lots of benefits of *Panchkarma* i.e. *Shodhana Karma* (Bio-purificatory therapy) it has grabbed a worldwide attention. Tough it has wide range of applicability but mainly indicated in Chronic disorders like Diabetes mellitus (*Madhumeha*). *Virechana Karma* (Therapeutic purgation) is one such treatment module of purification (*Shodhana*) in Diabetes Mellitus. It could be used in all diseases of endocrinal disturbance. Holistic approach of Ayurveda in regard to preventive, promotive and purificative measures provide better health in such diseases.

Aim: To establish role of *Virechana Karma* in the management of Diabetes Mellitus.

Materials and methods: All the PG and PhD thesis on Diabetes mellitus were referred for the study.

Conclusion: On observation of clinical data it can be concluded that *Virechana Karma* is effective clinically and statistically in prevention and management of Diabetes mellitus.

KEYWORDS : Diabetes Mellitus, *Madhumeha*, *Panchkarma*, *Virechana Karma*.

INTRODUCTION

Nowadays sedentary life style and stressful conditions have called for many distressing diseases, foremost amongst them being Diabetes Mellitus (DM), one of the perfect examples for a lifestyle disorder. DM in *Ayurveda* is referred to as *Madhumeha*, which literally means excessive urine with sweet taste like honey. In *Ayurveda* 20 types of Diabetes (*Prameha*) are mentioned, amongst those twenty types, *Madhumeha* has many clinical similarities to the modern day DM. Adult Onset DM begins with insulin resistance, a condition in which cells fail to respond to insulin properly. As the disease progresses a lack of insulin may also develop.¹ As with any therapy the benefits of efforts directed towards glycemic control weighed against the risk of treatment. Side effect of intensive treatment include- increase frequency of hypoglycemia, weight gain, increase economic cost.

Both the number of cases and the prevalence of diabetes have been steadily increasing over the past few decades. Diabetes caused 1.5 million deaths in 2012. Higher-than-optimal blood glucose caused an additional 2.2 million deaths, by increasing the risks of cardiovascular and other diseases.² WHO projects that diabetes will be the 7th leading cause of death in 2030.³ It has been narrated in *Ayurveda* that, the long periods of physical inactivity, laziness, sleeping for long hours, excess use of food which is heavy to digest like dairy products, aquatic and marshy animals, sugar/jaggery preparations, fresh grains etc. and similar foods that increase *Kapha Dosha* (governs structure and fluid balance in body) are generalized causes of DM (*Madhumeha*).⁴

Ayurveda emphasized that the first and foremost principle of prevention as well as the treatment of any disease is avoidance of causative factors. This is called the principle of *Nidana Parivarjanam* (abstain from the causative factors) in *Ayurveda*. Cleansing of the body by using bio-purification measures is advocated in case of obese diabetics. It is hypothesized that *Shodhana Karma* (Bio-purificatory therapy) works by improving the insulin production and/or increasing the insulin sensitivity. Some drugs may also be used to improve the glycemic control and overall quality of life and to prevent long term complications. According to *Acharya Charaka*, *Prameha* (diabetes) is *Santarpanjanita Vyadhi* (diseases caused by over nutrition) so it should be treated by *Apatarpana* (depletion

therapy). *Virechana* (therapeutic purgation) is also mentioned in the treatment of *Santarpana Janita Vyadhi*.⁵ Based on this principle, few research works were done on *Virechana* in (*Madhumeha*) which are discussed in this article.

MATERIALS AND METHODS:

Works carried out at Gujarat Ayurved University, Jamnagar at PG/PhD level under various departments during 2000–2016 were compiled and screened to assess the impact of *Virechana Karma* (therapeutic purgation) in diabetes management.

OBSERVATIONS:

Below mentioned subjects were referred for review study. All scholars gave *Virechana* to the patients in group A for total purification of body after that, patients were given medicine for 1-2 month. In another group only medicines were given and it was compared to that of *Virechana* group. For *Virechana Karma*, *Trikatu Churna* (powder of Ginger, Black pepper, long pepper) was given to the patients in the dose of 6 grams per day in two divided doses for 3-5 days for provocation of digestive fire. After that internal oleation was done using *Go-ghrita* (cow ghee) or medicated *Ghrita* for 3-7 days according to *Agni* and *Bala* (digestive power and Capacity) of the patient. Patients were given *Abhyanga* and *Swedana* (massage and fomentation) for 4 days, on the 4th day patients were given *Virechana* with Ayurvedic medicines and then were kept on special dietary regimen for 3-7 days. After that below mentioned medicines were prescribed and were assessed after medicine. All allopathic medicines of patients were stopped during the whole procedure.

Patel Asha (2004)⁶: 28 patients were randomly selected for this study and were subdivided into two groups, 14 patients were selected for *Virechana* group and after *Virechana* below mentioned medicine was given.

| Drug | PPBS(mg/dl) | Dose | Duration |
|--|-------------|-----------|----------|
| <i>Vidangadi Ghanvati</i> (Tablet form) | 140-200 | 2 Tab-TDS | 60 days |
| | 200-250 | 3 Tab-TDS | |
| | >250 | 4 Tab-TDS | |

Tikoo Ajay (2005)⁷: 37 patients of either sex were selected and subdivided into two groups, 16 patients were selected for *Virechana* Group and medicine was given after *Virechana*.

| Drug | Dose | Duration |
|----------------------------------|-------------|----------|
| Nishakatakadi Yoga (Powder form) | 3 grams TDS | 30 days |

Kumari Jyoti (2007)⁸: 37 patients were randomly selected and subdivided into two groups, 21 patients were selected for *Virechana* group with following medicine.

| Drug | Dose | Duration |
|-------------------------------------|------------|----------|
| Nyagrodhadi Ghanavati (Tablet form) | 2 Tab- TDS | 30 days |

Jindal Nitin (2008): 20 patients of either sex were selected for this study and subdivided into two groups of 10 patients each. *Virechana* was given in 10 patients and after that diet restriction was given for 15 days and patient was assessed after 15 days.

Pandey Rajeev (2010)

38 patients of either sex were selected and randomly subdivided into two groups. 20 patients were selected for *Virechana* with following medicine.

| Drug | Dose | Duration |
|---------------------------------|-------------------------|----------|
| Neem Giloy Satva (Capsule form) | 1 cap. BD (500 mg each) | 30 days |

RESULTS:

Table 1 Effect of Virechana Karma in various studies on Subjective criteria

| Sr no. | Subjective Criteria | Relief in percentage (%) | | | | |
|--------|---|--------------------------|-------|-------|-------|-------|
| | | A | B | C | D | E |
| 1 | Polyuria (<i>Prabhuta Mutrata</i>) | 77.77 | 13.69 | 90.24 | 64.20 | 50.0 |
| 2 | Turbid Urination (<i>Avila Mutrata</i>) | 68.75 | 10.52 | 88.88 | 62.50 | 42.31 |
| 3 | Polydypsia (<i>Pipasadhikya</i>) | 78.94 | 13.69 | 87.17 | 57.14 | 63.41 |
| 4 | Polyphagia (<i>Kshudhadhikya</i>) | 71.0 | 20.53 | 83.33 | 46.15 | 28.21 |
| 5 | Stretching pain in calf (<i>Pindikodweshdana</i>) | 61.76 | 63.34 | 89.36 | 63.63 | 46.15 |
| 6 | Burning in palm and sole (<i>Kara-padataala Daha</i>) | 73.33 | 13.04 | 88.09 | 75.0 | 55.56 |
| 7 | Numbness in palm and sole (<i>Kara-padataala Suptata</i>) | 70.0 | 11.89 | 91.30 | 57.14 | 40.0 |
| 8 | Lethargy (<i>Daurbalya</i>) | 63.63 | 48.35 | 85.36 | 58.30 | 24.0 |

Table 2 Effect of Virechana Karma in various studies on Objective criteria

| Sr no. | Objective Criteria | Relief in percentage (%) | | | | |
|--------|--------------------|--------------------------|-------|-------|-------|-------|
| | | A | B | C | D | E |
| 1 | FBS | 28.35 | 10.63 | 10.0 | 51.50 | 19.53 |
| 2 | PPBS | 31.13 | 23.64 | 6.43 | 81.60 | 12.18 |
| 3 | FUS | 42.30 | 45.77 | 23.56 | 25.0 | 25.30 |
| 4 | PPUS | 47.61 | 53.25 | 45.13 | 26.66 | 45.25 |
| 5 | HbA1c | 50.25 | 42.56 | 23.25 | 56.23 | 3.5 |

Table 3 Overall Effect of Virechana Karma in various studies

| Overall effect of therapy | Relief in percentage (%) | | | | |
|---------------------------|--------------------------|-------|-------|----|----|
| | A | B | C | D | E |
| Controlled | 7.15 | 12.50 | 0 | 0 | 0 |
| Marked relief | 50.0 | 18.75 | 68.75 | 40 | 0 |
| Moderate relief | 28.57 | 37.50 | 31.25 | 60 | 30 |
| Mild relief | 14.28 | 18.75 | 0 | 0 | 60 |
| No relief | 0 | 12.50 | 0 | 0 | 10 |

A =Patel Asha (2004), B =Tikoo Ajay (2005), C = Jyoti Kumari (2007), D = Jindal Nitin (2008), E = Pandey Rajeev (2010)

DISCUSSION:

Two varieties of diabetics (*Pramehi*) as classified in *Ayurveda* comprise, *Sthoola* and *Balavana* (obese-strong) and *Krishha* (thin-weak). Treatment for obese and strong diabetics begins with *Apatarpana* (depletion therapy). It is the line of treatment adopted in *Santarpanajanya Vyadhi* (diseases due to over nutrition). Lean and weak diabetics can undergo milder cleansing procedures followed by the treatment to nourish the body with specific management (*Santarpana Chikitsa*). Both types of diabetics can be successfully treated with distinct therapy and diet regimen.

Madhumeha (Diabetes Mellitus) is a complicated disease in which every cell of human physiology is affected. It is condition of *Bahudoshha* (excessive aggravation of *Dosha*) where application of *Shodhana Karma* helps in eliminating the large quantity of vitiated *Doshas* (body humors). Multiple, Radical and long lasting benefits of *Shodhana* (Purification) helps in correcting the disturbed homeostasis. The first line of treatment suggested for *Prameha* (diabetes) is *Shodhana* (bio purification). Lack of timely *Shodhana* is one of the causative factors of *Madumeha* (DM). Particularly *Vamana* (therapeutic vomiting) and *Virechana* (therapeutic purgation) are indicated in *Pramehi*. *Shodhana* includes different steps among them preparatory procedure is being an important one which decides the whole outcome of bio-purification. *Snehana* (oleation) and *Swedana Karma* (sudation therapy) helps in bringing the vitiated *Dosha* from *Shakha* (periphery) to *Kostha* (Gastrointestinal tract) and by *Vamana* or *Virechana Karma* it comes out of body and purifies the body.

Acharaya Charaka has explained *Madhumeha* may be due to wrong food habits, sedentary lifestyle and not undergoing timely *Shodhana*. This etiological factor vitiates mainly *Kapha*, *Pitta* and *Meda* (body humors and fatty substance) which causes excessive accumulation of morbid matter inside the body causes the *Avarana* (obstruction) and obstructs the path of *Vata* (airy elements). *Avarana* (obstruction) can be compared with insulin resistance. In insulin resistance, the body's cells have a diminished ability to respond to the action of the insulin hormone. To compensate for the insulin resistance, the pancreas secretes more insulin. According to *Acharya Sushruta*, *Samprapti* (pathogenesis) of *Madhumeha* takes its root from the *Ama* (undigested food). According to *Dalhana* *Virechana Karma* is essential to alleviate the *Prameha* and also to reduce the *Kleda* (clammy) vitiation.

Diabetes Mellitus initially exhibits with decreased ability of peripheral tissue to respond to insulin (insulin resistance) but ends up in inadequate insulin secretion (β -cell dysfunction) which is evident by pool of signs and symptoms with involvement of different systems thus patient goes on deteriorates. These seek a serious attention for its management. Without *Shodhana* only *Shamana* (Palliative treatment) in *Madhumeha* does not provide significant improvements.

Virechana Karma has its multi-dimensional effect on DM by correcting the metabolic impairment. *Virechana Karma* controls the levels of Glucose and HbA_{1c} levels by stimulating the β -cells of pancreas. According to *Acharya Shushruta*, *Madhumehi* are *Durvirechya* (hard for *Virechana*) so in them *Tikshna Virechana* (irritant purgation) is necessary. Moreover, the *Dosha* in the patients of *Madhumeha* accumulates in the lower part of the body. So, keeping these factors in view, the *Virechana Karma* was selected prior to the administration of *Shamana* drug, because it eliminates all Vitiated *Dosha* from body. So it brings normalcy of *Tridosha* (3 basic elements i.e. *Vata*, *Pitta*, *Kapha*). It acts at microcellular level and helps to maintain normal physiology of tissues. Diabetic patients need good blood vessel care and they also need quick wound healing.

Different medicines were given for *Virechana Karma*. In *Charaka Samhita*, *Snuhi* (*Euphorbia neriifolia* Linn.) has been mentioned as strongest purgative and is indicated in *Madhumeha* also. *Katuki* (*Picrorhiza kurro*) is mainly *Pitta-Virechaka* (eliminates *Pitta Dosha*) while *Snuhi* is *Ushna* (warm property) and *Tikshna* (acute), so the combination is able to eliminate both *Kapha-Pitta*. Both drugs are having *Deepana* (corrects digestive power) property so it can be assumed that combination acts on *Dhatwagnimandya* (hypo function of digestive power). As in DM there is increased hepatic glucose production there is a possibility that *Katuki* being *Pitta-Virechaka* reduces various enzymes responsible for this mechanism and so reduce hepatic glucose production.

Erand Taila (Castor oil) was also used by some scholars for *Virechana*. *Erand Taila* used in the *Virechana Karma* gets hydrolyzed in small

intestine by lipase to give ricinoleic acid which irritates and requires bile for hydrolysis. Bile serves as a means for excretion of several important waste products from the body. Result shows that *Virechana* is effective in the management of the metabolic syndrome with decrease in the fecal fat content, fasting blood glucose, serum triglyceride, and reduced fatty changes in liver, heart, and kidney.

Various neuropeptides and hormones are present in brain as well as Gastro Intestinal (GI) tracts, among these glucagon, insulin, and pancreatic polypeptide are included. *Virechana* may enhance the amount of these neuropeptides by cleansing the complete GI tract, as a result, the quantity of neuropeptides may normalize that in turn may affect the brain and modify its various functions. Based on the above findings, effect may be there in brain physiology to a highly considerable extent through *Virechana*. Hence, *Virechana* could be used in all diseases of endocrinal disturbance. So, it may be said that *Virechana* drugs perform the function of elimination of vitiated *Dosha* and *Mala* (waste product) not only from intestine but also from the whole body as discussed above.

CONCLUSION

With conventional (allopathy) therapies managing DM may not always be easy, but with *Ayurveda* management for DM, which is oriented toward prevention, health maintenance and treatment, one can stay healthy with benefits of a personalized treatment plan, diabetes-friendly diet, and lifestyle. On observation of clinical data it can be concluded that *Virechana Karma* is effective clinically and statistically in prevention and management of Diabetes mellitus. Many patients stopped allopathic medicines after this treatment and they were in well condition too. *Ayurvedic* principles of preventive (*Nidanparivarjan*) and purificative measures (*Shodhana*) with due consideration of appropriate single/polyhedral formulations (*Shamana*), diet (*Pathya-Apathya*) management have proved to be beneficial for better well-being in DM patients.

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