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# Clinical study on effect of Virechana Karma [Purgation therapy] in management of Overweight and Obesity

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### **Abstract:**

**Purpose:** Obesity is a rapidly increasing metabolic disorder in India. A report states that almost 65% of adult urban Indians are-either overweight or obese or have abdominal obesity. Moreover Obesity is the leading cause for co-morbid diseases like Dyslipidemias, Diabetes, Cardiovascular disorders including Hypertension, PCOD, Infertility, Osteoarthritis, etc. *Atisthoulya* is enlisted among the eight morbidity states [*Ashta nindita purusha*] in Ayurveda. *Virechana* is principal management procedure for all metabolic diseases including *Ati-sthoulya*. The present study is carried out to study effect of *Virechana* procedure in reduction of weight in obesity.

**Methods**: Total 110 patients between the age of 16 years to 70 years with Body Mass Index above 25 kg/m² attending OPD and IPD of SG Patel Ayurveda Hospital, Anand were studied under the present research. Classical *Virechana* Procedure including *Deepana-Pachana* followed by *Abhyanatara Snehapana*, *Virechana* and *Samsarjana Krama* was followed. *Virechana* schedule of average 15 days. Weight in Kg., Body Mass Index (kg/m²) were assessed before and after the *Virechana* Procedure.

**Results**: The observations show that there is a steady weight loss pattern after *deepana-pachana* (average 3 days, 1.41 kg), the weight further reduces after *Snehapana* (after avg.5 days,1.24 kg) and it further continues to decrease after *Virechana*(after 4 days including *Vishrama* [rest period] of 3 days, 1.47 kg). Thus after the treatment of nearly 15 days of *Virechana* schedule, average 4.61 kg weight loss was observed.

**Conclusion:** Virechana was found to be an effective measure for weight reduction in obesity.

Keywords: Sthoulya, Obesity, Virechana

#### Introduction

India is slowly developing into a capital for metabolic diseases like Diabetes and Obesity. A survey report of 2012 states that almost 65% of adult urban Indians are-either overweight or obese or have abdominal Obesity. [1] Moreover, Obesity is the leading cause for co-morbid diseases like Dyslipidemias, Diabetes, Cardio-vascular disorders including Hypertension, PCOD, Infertility, Osteoarthritis and other such disorders. Many patients are being advised to reduce weight to get freed from their sufferings. Ayurveda enlists 'Atisthoulya' [morbid Obesity] among the eight morbid disease conditions [Ashta nindita dosha]. All the classical texts have given due importance to this disorder in reference to the Apatarpana [procedures that lead to depletion of tissue elements resulting in weight loss].

Ayurvedic texts like Charaka Samhita,[2,3] Ashtanga Hridaya[4] have prescribed Samshodhana Chikitsa [bio-purification measures] for the treatment of Santarpanajanya vyadhi [diseases due to over-nutrition] like Sthoulya [Obesity]. Vamana [therapeutic emesis], Virechana [therapeutic purgation], Lekhaniya Basti [therapeutic enemata for reducing corpulence] are the most common procedures advised in the management of Obesity. Considering the co-morbidity of cardio-vascular diseases like Hypertension, convenience to the busy schedule patients, Virechana can be the safest procedure for elimination of Doshas in Obesity. The present clinical study has been conducted to study the effect of Virechana Procedure in overweight and obese patients.

# **Aims and Objectives**

The present research was aimed to study the effect of *Virechana* on reducing weight and Body Mass Index [BMI] of the obese patients.

# **Material and Methods**

Total 110 patients of Overweight and Obesity from the OPD and IPD of SG Patel Ayurveda Hospital were studied under the present research trial. All patients were administered *Virechana* procedure as per classical protocol.

# **Inclusion criteria:**

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- 1. Overweight and Obese patients with BMI above 25 were included for the study irrespective of their sex, religion, occupation.
- 2. Patients between the age of 16 years to 70 years are included.

#### **Exclusion criteria:**

- 1. Patients who had BMI below 25 were excluded.
- 2. Patients aged below 16 years and above 70 years were excluded.
- 3. Patients with serious systemic diseases like AIDS, Cancer, Coronary Artery Disease, Systemic Lupus Erythematosus etc. were excluded from the study.
- 4. Patients not suitable for *Virechana* as per the classics like those with Raktapitta, Ajeerna, Nava Jwara, Garbhini, weak etc. were also excluded from the study.

#### **Methods:**

Classical *Virechana* Procedure includes *Deepana-Pachana* [ promotion of digestion and metabolism], followed by *Abhyanatara Snehapana* [oleation] until symptoms of proper oleation [*Samyak Snigdha Lakshana*] are observed, actual administration of purgative medicine [*Virechana*] and post therapeutic dietetic schedule [*Samsarjana Krama*]. The patients were advised to follow a stipulated diet and lifestyle throughout the *Virechana* schedule for average 15 days. For *Deepana-Pachana*, *Chitrakadi vati*, *Trikatu churna were administered. For snehapana*, *Tiktaka Ghrita*, *Mahatiktaka Ghrita* or *Panchatiktaka Ghrita* [5] were prescribed. Total 36 patients with BMI between 25-30 kg/m² were prescribed Panchatikta ghrita; Total 26 patients with BMI between 31-35 kg/m² were prescribed Tiktaka ghrita; whreas total 26 patients with BMI above 35 kg/m² were prescribed Mahatikta ghrita. For purgation *Triphala kashayam* with *Eranda taila* and *Avipattikara churna* were prescribed.

Student's 't' test was applied in assessment markers of weight and BMI for statistical analysis. P<0.05 was considered significant, while interpreting the results [table 2]. Maximum and minimum weights before treatment, phase wise loss of weight, percentage improvement were also analysed and presented in table 1.

# **Assessment criteria:**

Weight in Kg., Body Mass Index (kg/m²) were assessed before and after *Virechana* Procedure.

# **Observation and Results**

Table 1: Data of 110 patients of Obesity

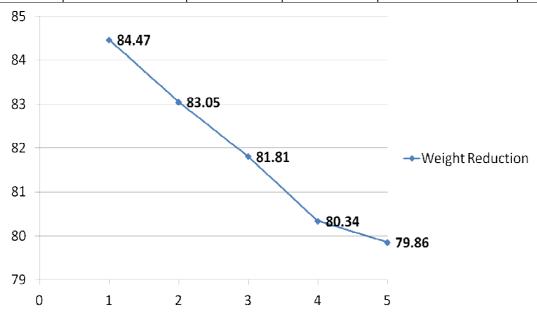
Sr.No.	Criteria	Maximum	Minimum	Average
1.	Age (in years)	65	16	40.93

	T	T	T	T
2.	Weight (kg) Before Treatment	150	54	84.47
3.	Weight(kg) After Treatment	148	48	79.86
4.	Weight Loss after deepana-	5	2	1.41
	pachana (in kg)			
5.	Weight Loss after Snehapana	7	-1*	1.24
	(in kg)			
6.	Weight Loss after Virechana	7	-1*	1.47
	(in kg)			
7.	Weight Loss after Samsarjana	5	-1.3*	0.47
	(in kg)			
8.	Total weight loss (in kg)	11	1	4.61
9.	BMI Before Treatment (in	68.48	22.72	33.89
	$kg/m^2$ )			
10.	BMI After Treatment (in kg/m <sup>2</sup>	67.56	21.71	32.05
	)			
11.	% improvement in BMI	13.88	1.09	5.50

<sup>\*</sup> Weight gain was observed in one patient.

Table 2: Effect of Virechana on weight and Body Mass Index

Sr.No.	Criteria	Mean ± SE		t value	P
		BT	AT		
1	Weight	84.47 ±1.64	79.86±1.58	51.45	P<0.05
2	BMI	33.89±0.62	32.05±0.60	52.64	P<0.05



X – Axis: Weight in Kgs 1:Start day. 2:After Deepana Pachana. 3:After Snehapana 4:After Virechana 5:After Samsarjana krama

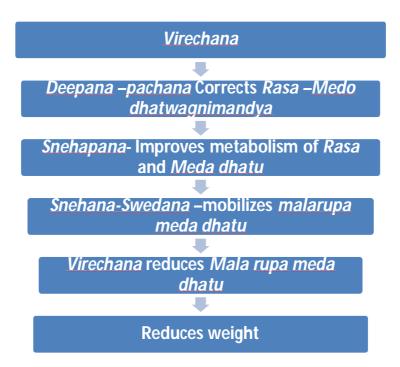
Y-Axis: Weight in Kg

# Graph 1: Weight loss pattern during Virechana

A total of 110 patients were enrolled in the present study, out of which 65 were female and 45 were male. The observations and results of the treatment are shown in the tables 1 and 2. The pattern of weight loss during the procedure is shown in graph 1.

The observations show that there is a steady weight loss pattern after *deepana-pachana* (average 3 days, 1.41 kg), the weight further reduces after Snehapana (after avg.5 days,1.24 kg) and it further continues to decrease after *virechana*(after 4 days including vishrama of 3 days, 1.47 kg). It decreases minimally after *Samsarjana krama*. Thus after the treatment of Nearly 15 days of *Virechana* schedule, average 4.60 kg weight loss was observed. Earlier, when the pilot study was conducted on 25 patients, average 5.08 Kg weight loss was observed.[6]

#### **Discussion**



Graph 2: Mode of action of Virechana

The mode of action of *Virechana* in reducing weight needs to be discussed. *Sthoulya* is predominantly a *Rasaja Vikara* [diseases of nutrient fluid tissue] as per Sushruta.[7] Charaka states it as a *Medoja vikara* [diseases of fats and lipids].[8]

In the pathology of *Sthoulya*, the *agni-vyapara* [metabolism] has been emphasized. The *Vata* obstructed by morbid *Medas* stimulates the *Koshthagni* [digestive faculty] resulting in series of metabolic changes leading to Obesity. *Agnimandya* at the level of *Rasa* and *Meda dhatu* is needs to be corrected. *Virechana* is the *Shodhana* procedure which corrects the *Agni* at gross level as well as *Dhatu* level. As observed the *Deepana Pachana* drugs can remove the obstruction at the

Dhatu level, followed by Snehapana which can dissolve the Meda dhatu dosha (mainly circulating fats). These wastes can further be eliminated by Virechana procedure. The dissolving of fat into fat is a topic of further study. Mobilization of these fats into mainstream by the procedures like Abhyanga [massage] and Swedana[fomentation] is important milestone for efficacy. Expulsion of these waste products through Purgation further improves the functions of Agni and cleanses body channels. Moreover Virechana can give additional benefits of feeling of well being in sense organs, elimination of doshas from body, Good sleep, correction of appetite and digestion. [9]

The benefits of Virechana as per current understanding may involve following mechanisms. [10]

- Detoxification of inflammatory products in serum
- Reducing inflammation, improving metabolic pathways
- Enhancement of digestion and metabolism
- Improving hepatic metabolism of carbohydrates and fats
- Improving blood and lymph circulation

Thus it can be summarized that *Virechana* therapy throws out accumulated toxic metabolites, ensures patency of micro and macro channels, optimizes absorption and assimilation of nutrients and pharmacological agents, permits the transport of ions and molecules through the cell membrane, and facilitates the desired pharmacokinetics of the curative remedies administered thereafter. The therapy ensures a disease free milieu interior, which turns receptive to anti aging, and longevity measures termed *Rasayanas*. [10]

# Conclusion

From the present clinical study, it can be stated that Virechana procedure is moderately effective in reducing weight of the obese patients.

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