

Effect of Kunjal Kriya on Class I Obesity: A Case Study

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How to cite this article:

Nimmi A N, P Sudhakar Reddy, Aparna Surendra/Effect of Kunjal Kriya on Class I Obesity: A Case Study/Indian J of Ancient & Yoga. 2022;15(4): 175-178.

Abstract

Obesity has been identified as a major public health challenge of the twenty first century across the globe. Obese individuals often face obstacles in society and in their day-to-day lives, far beyond health risks. Psychological suffering may be one of the most painful parts of obesity. Class I obesity boost the risk of multiple diseases, including hypertension, coronary artery disease, congestive heart failure, stroke, asthma, pulmonary embolism, gallbladder disease. The shatkarma of Hathayoga is indicated in excess Kapha (phlegm) and Medas (fat) condition like Obesity and Kunjal Kriya or Gajakarani is one of the types of Shatkarma (Dhouti) which is easy to carry out with high compliance level has effect on reducing the body weight. A Male patient aged 22 years approached to Swastharakshana OPD on 22nd May 2022 and with history of excessive weight gain since 2 years associated with exertional dyspnoea and excessive perspiration. After taking informed consent, Kunjal Kriya was carried out weekly twice for 4 weeks in our hospital under the direct supervision. At the end of the intervention period, patient weight was reduced by 4 kgs, BMI reduced by 1.3 and good compliance to treatment was noticed.

Keywords: Obesity; Yoga; Kunjal Kriya; Shatkarma; Saptasadhana.

INTRODUCTION

Obesity is a non communicable disease called as "New World Syndrome," creating an enormous socioeconomic and public health burden in poorer countries. The World Health Organization (WHO) has described obesity as one of today's most

neglected public health a problem; affecting every region of the globe.¹ It is said that, obesity has been identified as a major public health challenge of the twenty first century across the globe. An estimated 205 million men and 297 million women over the age of 20 years were recently estimated to be obese a total of more than half a billion adults worldwide.² Countries like India, which are typically known for a high prevalence of under nutrition, a significant proportion of overweight and obese people now coexist with those who are undernourished.³ As per the data, obese individuals often face obstacles in society and in their day-to-day lives, far beyond health risks.⁴ Psychological suffering may be one of the most painful parts of obesity. Society often emphasizes the importance of physical appearance. As a result, people who are obese often face prejudice or discrimination in the job market, at

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Received on: 05.10.2022

Accepted on: 29.10.2022

school and in social situations.⁵ Class I obesity boost the risk of multiple diseases, including hypertension, coronary artery disease, congestive heart failure, stroke, asthma, pulmonary embolism, gallbladder diseases.⁶

The medical management of obesity which includes drugs (which have adverse effects and high cost) and surgery are not giving promising results. Non-Drug therapies like Diet, Exercise and Yoga have some solutions. *Hatha yoga* prescribed various methods like *kriyas* (cleansing techniques), *Asanas* (postures), *Pranayama* (breathing techniques) and *Dhyana* (Meditation) etc, for making sound and healthy body. Hatha yoga stated that, there are seven means (*Saptasadhana*) namely *Shodhana* (Purification), *Dhrudhata* (strengthening) *Sthiarya* (steadiness), *Dhairya* (calming), *Laghava* (lightness), *Pratyaksha* (perception) & *Nirlipta* (isolation). *Shatkarma* (cleansing procedures) is for *shodhana*, *Asana* (yogic postures) for *Dhrudhata*, *Mudra* (yogic gestures) for *Sthiarya*, *Pratyahara* (withdrawal of sense organs) for *Dhairya*, *Pranayama* (controlled breathing) for *Laghava*, *Dhyana* (meditation) for *Pratyaksha* (Perception) & *Samadhi* (Supra mental consciousness) for *Nirlipta*.⁷

The *shatkarma* (6 Cleansing procedures of human body *Dhouti* (Cleansing technique for), *Basti* (Yogic enema), *Neti* (Nasal cleaning), *Trataka* (Gazing of steadfastly upon an object), *Nauli* (internal abdominal massage) and *Kapalabhati* (Frontal brain

purification) of *Hathayoga* is indicated in excess *Kapha* (phlegm) and *Medas* (fat) condition like Obesity.⁸ *Kunjalkriya* (voluntarily vomiting)⁹ is one of the types of *Dhouti* which is easy to carry out with high compliance level has effect on reducing the body weight.

PATIENT INFORMATION

A Male patient aged 22 years approached to *Swastharakshana* & Yoga OPD on 22nd May 2022 and with history of excessive weight gain since 2 years associated with exertional dyspnoea and excessive perspiration. Family history of the patient was negative for obesity. By occupation he is a medical Student No past history of any systemic illnesses. He also complains of excessive hunger, general weakness and emitting foul smell from the body. He was not under any medication for the same problem.

On examination anthropometric parameters-weight was 104 kgs, Height was and 173cm, BMI was 34.7 kg/m². On the basis of weight, BMI and classical symptomatology patient was diagnosed as Class 1 Obesity.

Clinical findings: On examination vitals were normal, no systemic abnormalities found and Anthropometric measurements suggests Class I obesity (Table. no.1)

Table 1: Clinical findings

Vitals			
Blood Pressure	110/80mmHg	Oedema	Absent
Heart rate	78 b/m	Clubbing	Absent
Pulse rate	78 b/m	Nourishment	Over nutrition
Systemic examination	Anthropometric findings		
Respiratory system	Non Vesicular Bilateral Sound Heard	Weight	104 kg
Cardiovascular system	S1 S2 heard	Height	173.5 cm
Central Nervous system	well oriented with respect to time, place, person	BMI :	34.7 kg/m ²
Built	well built	Waist Hip Ratio(WHR)	1.09
Pallor	Absent	Mid arm circumference (MAC)	35
Cyanosis	Absent	Skin fold thickness	35.7 mm

TIME LINE

The patient was walked in to OPD for Consultation on 22/05/2022 & Base line assessment was assessed on 22/05/2022 followed by intervention

was commenced on 29/05/2022 and the intervention was completed by 25/06/2022. The post interventional assessment was assessed on 29/06/2022 (Table 2)

Table 2: Time line

Date	Activity
22/05/2022	Consultation and base line assessment done
29/05/2022	Commencement of intervention
25/06/2022	Completion of intervention
29/06/2022	Post interventional assessment

Diagnostic assessment

Assessment done on 0th day, 15th day, 30th day of intervention

- Body Weight
- Body mass index (BMI)
- Waist Hip Ratio (WHR)
- Mid arm circumference (MAC)
- Skin fold thickness

Therapeutic intervention

The study was approved by IEC with No: 02/SWASTHAVRITTA/JSS AMC-2020

After taking informed consent from the patient, *Kunjal Kriya* was carried out weekly twice for 4 weeks in our hospital under the direct supervision.

Requirement: 2 litres of boiled filtered water and added around 25grams of *Saindhava Lavana* (*Rock salt*)

Position: patient was made to sit in *Kagasana*/squatting position.

Time: Morning (6 am to 8 am) in empty stomach after evacuation of natural urges.

Procedure: Patient was made to sit in *Kagasana* (squatting position) and given Luke warm saline water for drink around 2 liters continuously until the individual felt a sense of fullness or nausea. The individual was then asked to stand and bend forward from the low back, keeping feet at a distance of 1 to 1.5 feet and asked to induce vomiting by gently touching the root of the tongue and uvula using index, middle and ring finger. When all the water ingested had vomited out, patient was advised to gargle with Luke warm water and wash the face with clean water, followed by relaxation in *Shavasana* for 5 minutes. Patient was advised to take 150ml of warm skimmed milk after half an hour, followed by *Khichdi* or *Pongal* (light warm easily digestible food) after 1 hour of *Kunjal Kriya* and rest of the day, normal diet.

Table 3: Compliance to treatment of Kunjal kriya

Date	Compliance
29/05/2022	Abdominal pain was observed 1 episode of Loose stools occurred
2/06/2022	Heaviness of head felt
6/06/2022	Headache felt
10/06/2022	Congestion of Nose felt
14/05/2022	Lightness of head observed
18/06/2022	Lightness of body observed
22/06/2022	Improved appetite observed
25/06/2022	Improved appetite felt

Table 4: Outcome parameters

Parameter	Baseline (0th day)	15th day	30th day
Weight (kg)	104 kg	102.5	100
BMI (kg/m ²)	34.7 kg/m ²	34.1	33.4
Waist Circumference (cm)	118 cm	112	106
Waist Hip ratio (WHR)	1.09	1.03	0.98
Mid arm circumference (cm)	35cm	35	34
Skin fold thickness (mm)	35.7 mm	34.3	33.8

Follow-up and Outcome of intervention: Each follow up patents were assessed for his compliance for treatment (Table no. 3). At the end of the intervention period, patient weight was reduced by 4 kgs, BMI reduced by 1.3. Moreover the patient's subjective symptoms like exertional dyspnoea, excessive perspiration and emitting foul smelling from body are significantly reduced. Other outcome parameters are listed in table no. 4.

DISCUSSION

Shatkarma is indicated in excess *kapha* (phlegm) and excess *meads* (fat) like obesity. *Kunjal kriya* helps in liquefying the *kapha* and *medas*, thus mobilizes the accumulated fat to reduce the body weight. *Kunjalkriya* helps in preventing indigestion, obtaining the best possible assimilation of nutrients into the body, through this way it can reduce obesity and related disorders. *Kunjal* neutralizes the acid balance in the stomach, thus helpful in counteracting *Tivra jatharagni*. This helps in reducing excessive hunger and thirst in the obesity. The studies also reveal that *Kunjal kriya* also reduces bile acid pool resulting in reduced fat thus it can help to reduce weight.¹⁰ The results are a reduction of excess fatty

tissue and relief from flatulence, constipation, poor digestion and loss of appetite.¹¹ Previous studies show that the *kunjal kriya* is beneficial in arthritis, diabetes, and loosening of weight.¹² The present case study also shows that there is an effect of *kunjal kriya* on obesity.

CONCLUSION

The present case study reveals that *kunjal kriya* helped in reducing the weight body weight as well as relieving obesity related symptoms in obese people with high compliance rate and without any complications. Further clinical studies are needed to determine the long term effect of *kunjal kriya* and even restricted diet studies also needed in the management of obesity.

Declaration of patient consent:

Authors certify that they have obtained patient consent form, where the patient has given his consent for reporting the case and other clinical information in the journal. The patient understands that his name and initials will not be published and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

Financial support and sponsorship: Nil

Conflicts of interest: There are no conflicts of interest

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