

**CLINICAL IMPORTANCE OF SHATKARMA IN THE MANAGEMENT OF OBESITY
AND CHRONIC CONSTIPATION- A REVIEW ARTICLE*****Anil Kothari**

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ABSTRACT

The intent of yoga is to create well being by imparting positive energy to us. Mental stress, unhealthy life style choices, excessive eating and poor physical activity leads to constipation and obesity. While almost any exercise is good for obesity, yoga's holistic approach may give an extra boost in the modern world to maintain physical, mental and spiritual balance by curing and /or managing diseases as well. Among the various components of yoga used therapeutically the most popular are Asanas, Pranayamas, Meditation and shatkarma (Internal cleansing practices). There is an emphasis on shatkarma in various Hatha yoga texts to remove wastes from the body and make it light and energetic. The current study summarizes the effects of shatkarma on obesity and chronic constipation by focusing on the results described in review articles. This paper is a review of empirical studies and review publications on shatkarma and highlights the therapeutic effects on obesity and chronic constipation.

KEYWORDS: *Constipation, Obesity, Shatkarma, Wellbeing, Empirical, Therapeutic.***INTRODUCTION**

The Shatkarma also known as shatkriya in Hatha yoga is designed to purify physical body, to expel toxins from the body for balancing tridoshas and to induce healing capacity towards higher practices of pranayama and meditation.

The aim of shatkarma is to create harmony between the two major pranic flows, ida and pingla, thereby attaining physical and mental purification and are also used to balance the three doshas or humors in the body: kapha (mucus), pitta (bile) and vata (wind) in order to purify the body of toxins to ensure safe and successful progression along the spiritual path.^[1] Shatkarma, the set of six yogic cleansing practices, is discussed in the traditional texts of Hatha yoga prominently in Hathayoga Pradipika and Gheranda Samhita. In the system of Ayurveda any disease process begins due to imbalance in one's constitution of tridoshas. The constitution defines as the inherent balance of energies within the body and mind. Yoga philosophy though considers the tridosha theory of Ayurveda but stresses more on the functioning of human life under the influence of trigunas (Sattva, Rajas, and Tamas) which in turn also governs tridoshas.

According to Ayurveda the abnormal increase of medodhatu (Fatty/ Adipose tissue) and mamsa (Flesh/ Muscle tissue) leads to flabbiness of hips, abdomen and breast and hence categorized as Atisthula (obesity).^[2] Obesity may be caused due to multiple health issues

including hormonal imbalances, stress, anxiety and mental illnesses, excessive eating more than the body needs with lack of physical activity and unhealthy life style choices. In the system of yoga it is considered that the accumulation of earth and water elements due to overeating and sedentary life style contributes to slow metabolism and obesity.^[3] The possible cause behind this negative association may be the antagonistic qualities of earth and water as heavy, dense, slow and cold against metabolic fire as sharp, light and hot.^[3] Constipation or Vibandha refers to bowel movements that are infrequent or hard to pass.^[4] Chronic constipation is found more commonly in women, elderly and patients with concurrent psychiatric illness.^[5] In order to address obesity with symptoms of chronic constipation, Shatkarma has become popular as a complementary and alternative medicine for loosening fat and relieving from constipation. Though the stomach is the seat of all the diseases but the practice of shatkarma promotes normal functioning of the intestines, alleviates the feeling of anxiousness, stress and anxiety cleans the colon by giving the scrubbing effect and removes the accumulated wastes and thus provides overall wellbeing.

METHODOLOGY

This is a review of importance of Shatkarma in the management of obesity and chronic constipation that has been published over the last few years. To identify all the relevant published articles certain priori search terms were used such as Hatha yoga, Shatkarma, Obesity,

Constipation and Chronic constipation. Empirical studies, systematic reviews, Hatha yoga texts such as Hathayoga Pradipika and Gheranda Samhita and Meta-analyses are included on health conditions related to obesity and constipation. Reference lists of relevant published scientific materials were also evaluated to include appropriate relevant information in the present study.

DISEASE REVIEW

Obesity: Obesity results from the accumulation of excess fat on the body that triggers a risk to health.

Signs and Symptoms: There are no specific symptoms of obesity. The signs of obesity are;

1. Excess body fat accumulation particularly around the waist, hips and thighs.
2. Shortness of breath^[6]
3. Fatigue^[6]
4. Excessive sweating

Causes of the disease^[7]: Complex mixes of factors that can lead to obesity are summarized below;

1. Energy imbalance: Energy imbalances can cause overweight and obesity. When energy IN is more than the energy OUT creates the body to store fat.

2. Due to Endocrine Disorders: The following endocrine disorders can cause overweight and obesity;

A. Hypothyroidism: The decreased metabolism and weight gain is associated with low levels of thyroid hormones.

B. Cushing's syndrome: High level of cortisol in the blood make the body feel like it is under chronic stress. As a result, people have an increase in appetite and body will store more fat.

3. Medicines such as antipsychotics and antidepressants can cause weight gain and lead to obesity.

Chronic Constipation: Chronic constipation is defined by the American College of Gastroenterology as "unsatisfactory defecation characterized by infrequent stool, difficult stool passage or both at least for previous 3 months."

Signs and Symptoms^[8]: Constipation itself is a symptom but each individual may experience it differently. Most common include;

1. Incomplete evacuation
2. Difficulty is passing stool (Straining)
3. Hard stools
4. Bloating and sometimes abdominal pain
5. Decreased appetite

Causes of the disease

1. Low Fiber Diet: Complete lack of fiber or low level in diet may induce the symptoms of constipation as fiber promotes regular bowel movements.

2. Physical Inactivity: It is believed that colon responds to activity and people who exercise regularly don't develop constipation. A study by

Lovino, P.^[9] concluded that prolonged physical inactivity lead to constipation in healthy individuals.

3. Primary causes^[10]: Primary causes of constipation arise from intrinsic defects in colonic function.

4. Medication Side effects^[11]: Side effects of certain medications including antidepressants, opioid pain relievers and sleeping pills.

5. Medical conditions^[11]: Due to stress and other medical conditions such as thyroid problems and diabetes.

SHATKARMA: Shatkarma is a set of 6 preparatory practices in Hatha yoga designed to make the body strong and healthy by cleansing the subtle channels as well as remove accumulated wastes/ toxins in the body. Whereas shatkarma is mentioned both in Hathayoga Pradipika and Gheranda Samhita but the idea of performing and the sequence is completely different.

The Concept of Shatkarma in Hathayoga Pradipika Swami Swatmarama, the author of Hathayoga Pradipika has recommended the practice of shatkarma only in the following conditions;

"When fat or mucus is excessive, shatkarma, the six cleansing techniques should be practiced before (pranayama) and for others i.e. the doshas- phlegm, wind and bile are balanced should not do them."^[12] Hence for those the practice is optional.

Sequence of Shatkarma in Hathayoga Pradipika^[12]: Dhauti, Basti, Neti, Trataka, Nauli and kapalbhathi are called Shatkarma.

Dhautirbastistatha netistratakam naulikam tatha, Kapalabhathischaitani shatkarmani prachakshate. **HYP 2/22**

The Concept of shatkarma in Gheranda Samhita: Maharishi Gheranda has emphasized the practice of Shatkarma at the very first stage of yoga. In Gheranda Samhita the human body with mind is mentioned as vessel (Ghata) and the purification of body and mind i.e. Ghata, is known as Ghata suddhi.

Sequence of Shatkarma in Gheranda Samhita^[13] Maharishi Gheranda considered shatkarma as one of the seven limbs of Ghata yoga and without it the progress in other limbs of yoga will be difficult.

Dhautirbastistatha netirlauliki tratakam tatha, Kapalabhathischaitani shatkarmani samacharet. **GS 1/12**

Explaining the Application of Shatkarma as mentioned in Hathayoga Pradipika and Gheranda Samhita in managing Obesity and Chronic Constipation

Dhauti^[12]: The combination of all the practices of Dhauti cleans the entire digestive tract and respiratory tract. It removes excess and old bile, mucus and toxins and removes infectious bacteria from the stomach, intestine and anus. The results are a reduction of excess fatty tissue and relief from flatulence, constipation and

poor digestion and loss of appetite. The Gheranda Samhita states that the Dhauti can cure abdominal ailments and fever.

Basti^[12]: The practice of Basti completely washes the bowel and removes excess bacteria, old stool and heat from the lower intestine. Basti cures digestive disorders and is particularly useful for removing constipation.

“All diseases arising from excess mind, bile and mucus are eliminated from the body through the practice of Basti”. **2/27 HYP**

“The practice of Jala Basti increases appetite, the body glows, excess doshas are destroyed and the dhatu, senses and mind is purified”. **2/28 HYP**

Neti^[12]: The practice of Neti promotes a balance between the left and right nostril and consequently the left and right hemispheres of the brain. This induces a state of harmony and balance throughout the entire nervous systems governing respiratory, circulatory, digestive and excretory functions.

“Neti cleanses the cranium so destroys all diseases which manifest above the throat”. **2/30 HYP**

Trataka^[12]: Trataka benefits not only the eyes but a whole range of physiological and mental functions. It is therapeutic in depression, insomnia, anxiety, poor concentration and memory.

“Trataka eradicates all eye diseases, fatigue and sloth and closes the doorway creating these problems”. **2/32 HYP**

Nauli^[12]: Nauli tones the abdominal muscles and massages the internal organs. Nauli is useful for stimulating digestion and alleviating constipation, indigestion and hormonal imbalances.

“Nauli kindles the digestive fire, removing indigestion, sluggish digestion and all disorders of the doshas and brings about happiness”. **2/34 HYP**

Kapalbhati: “The process of kapalbhati destroys all mucous disorders”. **2/35 HYP**

Summary of Scientific evidences on the effect of Shatkarmas in obesity and chronic constipation

1. A randomized controlled study conducted by Kiran et al; 2019^[14] on 60 healthy individuals for evaluating the effects of laghu shankha prakshalana in bowel health. Volunteers who received the intervention once a week for 4 weeks showed significant reduction in constipation score as compared to control group in the Cleveland clinic constipation scale.
2. A study conducted by Telles et al; 2019^[15] on effect of kapalbhati demonstrated an increase in attention with reduction in anxiety levels. As stress and other

mental illnesses causes to imbalance in autonomic nervous system which in turn disrupts brain-gut-axis (BGA). This leads to the development of different diseases of gastrointestinal tract. So kapalbhati indirectly addresses obesity and constipation by directly approaching stress and anxiety as evidenced by a number of studies.

3. The practice of Nauli is said to strengthen the secretion of gastric juice including endocrine and exocrine functions of the pancreas as evidenced by Patra, S, 2017.^[16]
4. Hypothalamus functions as regulator in the processing of hunger and satiety senses.^[17] It is believed that the senses of hunger and satiety are directly related to pressure on the stomach or intestinal walls.^[18] A study conducted by Alexander, P, et al, 2017^[19] found that colon pressure drops by 40-50 (5) mmHg when performing Nauli kriya. Hence by controlling eating behaviour, obesity and constipation may be checked.
5. Kapalbhati pranayama induces the balance of vata (Wind), pitta (Bile) and kapha (Phlegm) and also improves concentration as evidenced by Dipak, BC, 2013.^[20]
6. A study conducted by Ruta K et al, 2014^[21] found that kapalbhati pranayama tones the abdominal muscles and reduces abdominal fat.
7. Weight loss as a result of kapalbhati practice correlates with the loss of subcutaneous fat rather than visceral fat which proves that there is a substantial decrease in waist to hip ratio as evidenced by Dinkar K et al, 2013.^[22]
8. A study conducted by Li Z et al, 2005^[23] on metabolic changes in obese individuals after 48 days course of Basti. A significant decrease was observed in weight, BMI, upper arm and abdominal circumference and this decrease was maintained over a period of three months.
9. A study conducted by Shelke et al, 2019 on evaluation of efficacy of Kunjal kriya (Gajakarani) in the management of obesity. It was summarized that Kunjal kriya (a type of Antardhauti) alleviates the kapha dosha and increased medodhatu in obese individuals and controls the obesity.^[24]

CONCLUSION

It may be concluded that Shatkarma is an acceptable preventive and management strategy to be useful in reducing obesity and constipation. Although obesity and constipation is caused by a wide variety of etiologies but classical Hatha yoga texts such as Hathayoga Pradipika and Gheranda samhita evaluated the effects of Shatkarma on various parameters of the disease.

In summary this review postulates the role of Shatkarma in removing impurities and cures a range of diseases so as to prepare the body for Asanas, Pranayamas and Meditation but there is no comprehensive literature available that can warranty to evaluate the effects of Shatkarma in various diseases. Hence there is a need to

know the mechanism of such effects on human body by Shatkarma. So, additional empirical studies are also needed to examine the benefits of practicing Shatkarma in various diseases especially obesity and chronic constipation.

The literature review was limited to online free databases and Hatha yoga texts but from the available literature it is found that the practice of Shatkarma is safe and beneficial in promoting health and improving quality of life of people by addressing obesity and constipation when practiced under the guidance of a trained teacher.

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