

## **EFFECT OF INTEGRATIVE YOGA AND NATUROPATHY MANAGEMENT IN MORBID OBESITY WITH MULTIPLE HEALTH ISSUES**

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### **ABSTRACT**

42 year old married women diagnosed with morbid obesity, renal calculi, fatty liver grade 2, hypo vitamin D deficiency, cholelithiasis with multiple health issue in may 2018. She visited our Naturopathy hospital rhoini new Delhi with complain of overweight with Breathing difficulty because of heavy weight since 6 month, subject was admitted in our naturopathy hospital for 45 days and received a integrative Yoga And Naturopathy Management .Record maintained post assessment of weight, body mass index, waist circumference, blood profile and blood

glucose level, blood pressure, and lipid profile, ultrasound of abdomen were assessed before and after the intervention.

**KEYWORDS:** Naturopathy, morbid obesity, weight management, Yoga.

### **INTRODUCTION**

Obesity may be defined as an abnormal growth of adipose tissue due to an enlargement of fat cell size or an increase in fat cell number or a combination of both.<sup>[1]</sup> In 2010, overweight and obesity were estimated to cause 3.4 million deaths, 3.9% of years of life lost, and 3.8% of disability-adjusted life-years worldwide.<sup>[2]</sup> Prevalence of obesity is increasing in developed<sup>[1]</sup> and developing countries like India where, it has reached epidemic proportions in 21<sup>st</sup> centuries with morbid obesity affecting 5% of the country's population.<sup>[3]</sup> The long-term success of management is limited in conventional medicine, and evidence suggests that obese patients are seeking alternative forms of health care for weight loss.<sup>[4]</sup> Naturopathy is a distinct type of primary care medicine that blends age-old healing traditions with scientific advances and current research.<sup>[5]</sup> Yoga is an ancient Indian science as well as the way of life,

which includes practice of restraints and regimens (yama-niyama), specific postures (asana), regulated breathing (pranayama), etc.<sup>[6]</sup> Naturopathy treatment and Yoga were individually shown to have a beneficial effect on obesity in various studies.<sup>[7],[8]</sup> To the best of our knowledge, there is no known long-term case-study reported of the effect of the combination of both on obesity. We present here a case of the Effect of integrative yoga and naturopathy management in patient with morbid obesity grade 3 with multiple health issues over 1 year.

**AIM:** To study Effect of Integrative Yoga and Naturopathy Management in Morbid Obesity with Multiple Health Issues

### CASE REPORT

A 42 year-old married women came to our Yoga and Nature Cure Hospital, 1-year back 2018, subject came with the complaint of increase in body weight since 2-year with diagnosed with morbid obesity, renal calculi, fatty liver grade 2, hypovitamin D deficiency, cholelithiasis with multiple health issue like Breathing difficulty because of heavy weight since and b/l knee joint pain since few month aggravating pain while climbing stairs, epigastric pain since few days and she was admitted in our naturopathy hospital for 45 days. The weight gain was gradual in onset and steadily progressive in nature. At the age of 42 - year, the patient had cardiac disease and underwent treatment in a private hospital. Her weight then was about 121-kg with height of 4.3ft. After treatment doctors advised her to take proper diet and reduced some weight and to go for any physical activities and daily walking. As per doctor's suggestion, she started taking diet and increased her physical activities and she received integrative naturopathy therapies, yoga therapies and diet measures along with record maintained post assessment of weight, body mass index, waist circumference, blood profile, blood glucose level, blood pressure, and lipid profile, ultrasound of abdomen were assessed before and after the intervention.

### CASE FOLLOWS UP

**Case follow up** – Assessment Of morbid obesity and renal calculi and blood sugar profile was done by Examinations on First Visit and Patient Follow up was done daily. The first visit of the 42-year-women to our Yoga and Nature Cure Hospital was in the month of May 2018. She was advised to stay in the hospital for 15-day and provided Yoga sessions (60-min/day) morning and 60-min /day evening and Naturopathy treatment (90-120-min/day) morning and afternoon for 45-day. **Yoga intervention** was given with asana, pranayama, kriyas (cleansing

techniques) and **Naturopathic intervention** was given with hydrotherapy, diet and fasting therapies, mud therapy, and massage therapy.

At the time of discharge, she was advised to continue the Yoga at home and maintain the prescribed intake of food. She was maintaining the achieved weight for the period of 6 month. And she got admitted in our hospital for the period of 10-day, every 2 month. At the time of discharge, she was counseled again, and she was regularly followed up for compliance for the interval period of 6 month. The height was carefully measured with a standard measuring tape, in centimetres. The weight was measured in kilograms by the standard weighing machine. Body mass index (BMI) was calculated by a formula- weight (in kg)/height<sup>2</sup> (in m<sup>2</sup>). The values of weight and BMI, over the month and after interventions are shown in table 1.

**Table 1: Anthropometry Measurement Before and After.**

Measurements	Before treatment	After treatment
Height	4.4ft	4.4ft
Weight	121kg	105kg
Chest	53cmc	48cmc
Arm	18cmc	15cmc
Abdominal	58cmc	49cmc
Thigh	30cmc	25cmc
Bmi	32.5	27.3

**Table 2: Blood test Report Before and After.**

S.no	Date	Blood test report	Before treatment	Date	After treatment	Normal Value
1	29 may 17	Iron	34.35 ug/dl	25-8-18	70.6 ug/dl	50-170 ug/dl
		Total Iron Binding Capacity	333.8 ug/dl		353 ug/dl	215-535 ug/dl
		% Tranferrin Sturation	10.29%		20%	13-45%
2	29 may 17	Calcium	8.33mg/dl	25-8-18	9.4 mg/dl	8.8-10.6 mg/dl
3		Uric acid	5.38 mg/dl	25-8-18	5.6 mg/dl	3.1-7.8 mg/dl
4	31 may 18	Blood sugar profile	6.5%	25-8-18	5.8%	Below 6.0%
		HbA1c				
		Average blood gulose		25-8-18	120 mg/dl	90-120 mg/dl X.C
5	29 may 17	Vitamin D	8.5 ng/ml	25-8-18	11.47 ng/ml	-
		Vitamin B-12	192 pg/ml	25-8-18	175 pg/ml	211-911 pg/ml

**1) Nature Cure Treatments given for 1 month regularly Treatments Protocol: Nature Cure Treatments given for 1 month regularly Treatments Protocol.**

S. No	Treatments Given	Frequency	Duration (Time)	Days
1.	Mud - Abdominal pack and eye pack	Ones daily	20mints	
2.	Kidney pack	Ones daily	30mints	
3.	Hot and cool compress to abdominal and lower back	Five rounds abdominal and lower back DAILY	40mints	
4	Ghpk	daily	20mints	45
5	Full wet sheet pack	Alternative days	30 mints	13
6	Full mud bath	Alternative days	45minits	13
7	Steam bath	Alternative days	5mint	15
8	Full vibro massage	Week days	35mint	10
9	Cold Hip bath	daily	10mint	30
10	Hot and cold compress abdominal and back	daily	10 mint	15
11	Cold abdominal pack	daily	15 mint	10
12	Full body massage	Weakly ones	35mint	10

**2) Integrative yoga protocol for everyday for 1 month for 1 hour regularly**

1. Yogic Sukshma Vyayama
2. Urdhwa-hastotanasana
3. Tadasana
4. Trikonasana
5. Kati-Chakrasana
6. Veerasana
7. Paschimottanasana
8. Vakrasana
9. Mandukasana
10. Janusirasana
11. Bhunamanasana
12. UttanPadasana
13. Pavanmuktasana
14. Naukasana
15. Bhujangasana
16. salabhasana
17. Makrasana
18. Savasana

19. *Pranayamas* : Anoloma Viloma, Seetali, Seetkari, Sadanta

20. *Relaxation technique*: IRT, QRT, DRT & Yoganidra.

**Dietary and lifestyle modification:** Patient Is Advised to Avoid Incompatible Food Items Junk/Fast Food, Excessive Oily-Salty-Spicy Food. Patient Is Advised Daily 1 Hour of Yoga and Physical to Activities. Patient Was Suggested To Maintain Personal Hygiene & Regular Healthy.

**Diet Plan:** Following Dite Plan Was Also Advised Which Was Followed Moderately

6.00am haf tsp fenugreek powder +one cup luke warm water

7.00am papaya fruit –small bowel

8.30am two chapathi +giya/turi/sabaji

10.00 am: sprouts 100gm (moog & methi)

01.00pm: roti2+lauki/tinda/tarori/karela ki sabji 300gm+dal 250ml+salad 200 gms

03.00 pm: bitter gourd juice or lemon water salt

05.00 pm: small bowl firit-papita/cucumber slices

07.00 pm: roti 1 or 2+ lauki ki sabji/vegetables 400 gms+ salad 300 gms

## RESULTS

**The results of the treatments (pre and post)**

Singh & Symptoms	Pre-observation	Post- observation after a month
Fatigue	present	Feeling energetic
Constipation	present	Relieved
Limit of water intake	1.2litre	1.5litre
Pallor	Hb-8.9%	Hb-9.80%
Pain in the abdominal	Present	Absence
Gas formation	Present	Absence
Swelling lower limbs	Present	Absence
Puppy face	Present	Absence

## DISCUSSION

This case report showed a gradual and sustained reduction in weight and BMI with no side effects. Reduction in the body weight showed the changes in WHO obesity classification grading that is, the reduction in the year 2008 and 2010, was from class-II obesity to class-I obesity, the reduction in 2012 did not show any changes in its class and reduction in the year 2014, showed a change from class-I obesity to overweight or preobese.<sup>[1]</sup>

As mentioned by Park, the history in the patient suggested that an increase in weight was caused primarily by a markedly reduced physical activity, rather than by a marked increase in food intake or by other factors.<sup>[1]</sup> Our subject started gaining weight during her excessive rest period after her surgery.

Obesity is a major risk factor for diabetes, hypertension, ischemic heart disease,<sup>[1],[8]</sup> dyslipidemia, insulin resistance, sleep apnea, polycystic ovarian syndrome, infertility, osteoarthritis of knee, low back pain, gall bladder disease etc.<sup>[1]</sup> Hence, normalization of body weight in obesity is essential in preventing above mentioned complications.<sup>[1],[7]</sup> A sustained body weight loss is also essential. The treatment of obesity with Naturopathic modalities such as diet, exercise therapy, and hydrotherapy has also been shown to reduce the target organ damage in the heart, liver, and pancreas and improve their functions.<sup>[7]</sup>

We followed the traditional approach of weight reduction, in which the prescription of a balanced diet that provides an energy intake below that of energy expenditure.<sup>[9]</sup> Our subject's weight reduction was based on the basic principles of weight management in obesity that is primarily to achieve clinically significant weight loss and then secondarily to maintain the weight loss.<sup>[9]</sup> But the addition of pryanamas, asanas and kriyas must have helped to enhance the motivation and compliance. A previous study on pranayama showed a significant reduction in weight and BMI.<sup>[6]</sup> Yoga was also reported as an appropriate intervention for weight maintenance, prevention of obesity and a reduction in risk factors for cardio-metabolic health in obesity.<sup>[10]</sup>

## CONCLUSION

The case report shows remarkable changes in reduction of weight over the period of 6 month that improved the quality of life following a 6 month integrative yoga and naturopathy intervention. Transition in the grade of obesity (WHO) from class-II to class-I and then to overweight suggests that an integrative approach with integrative naturopathy therapies, yoga therapies and naturopathy diet follo was worthwhile. There is a need to carry out large-scale studies of such an integrative management as a follow-up on this case report.

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