



SUCCESSFUL MANAGEMENT OF STHOULYA THROUGH MULTITUDE APPROACH- A SINGLE CASE STUDY

Dr. Rashma S.*¹, Dr. Sonia. J.², Dr. Bhavana G. B.³ and Dr. Monica Mitra⁴

¹Assistant Proessor, Department of Swasthavritta & Yoga, Sdmiah, Bengaluru.

²Associate Proessor, Department of Swasthavritta & Yoga, Sdmiah, Bengaluru.

^{3,4}Internee, Sdmiah, Bengaluru.

*Corresponding Author: Dr. Rashma S.

Assistant Proessor, Department of Swasthavritta & Yoga, Sdmiah, Bengaluru.

Article Received on 29/08/2020

Article Revised on 19/09/2020

Article Accepted on 09/10/2020

ABSTRACT

We are in the era where human is running in short of time in order to achieve his goals and to fulfil his worldly luxurious desires and due to the sedentary life-style, a significant increase in the prevalence of obesity is found in almost all the age groups in the past few decades. Obesity is the major risk factors for numerous chronic diseases like Diabetes Mellitus, Coronary Artery Diseases, Cerebro-Vascular Accidents. Many among the Indian population have started to rely upon processed foods that contain a huge percentage of trans-fat, sugars, and other unhealthy and artificial ingredients, lack of physical activity, sedentary life style all of them team up in causing various disorders. In order to overcome this, Life style modifications is a must. The available data is based on the clinical findings only. **Aim and Objective:** To assess the efficacy of multitude approach in the management of *Sthoulya*. **Setting:** *Swasthavritta* and *Yoga*, OPD and IPD, SDMAH, Bengaluru. **Method:** *Udwarthana*, *Shodana*, *Shamana*, *Ahara*, and *Vihara*, *Yoga & Accupuncture* was advised and assessed before treatment and after treatment, advised for follow up. **Results:** The treatment adopted is effective in the management of *Sthoulya* and to improve the quality of life.

KEYWORDS: Obesity, *Sthoulya*, *Apatarpana Chikitsa*, *Yoga*.

INTRODUCTION

Sthoulya is considered as the major global epidemic disease owing to its prevalence in both developed and developing countries. Modern day lifestyle changes with sedentary habits and fast food has influenced the statistical data of occurrence of obesity significantly in recent years. Along with these, the genetic factors also play a great role in causing *Sthoulya*. As it contributes to increased morbidity and mortality of other diseases, it is important to understand the different causes and pathogenesis of *Sthoulya* in detail along with the knowledge of normal metabolism in *swastha*.

China and India accounted for 15% of world's obese population, with 46 million and 30 million obese people. According to study the number of overweight and obese people globally increased from 857 million in 1980 to 2% billion in 2013.^[1] India saw significant rise in obesity from its 19th position for both men and women in 1975 to rankings 5th and 3rd respectively in 2014, reflecting increasing obesity rates among women worldwide.^[2]

Sthoulya is a major *Santapanothajanya Vyadhi*³, which involves pathogenesis of the vitiation of *rasa*, *kaphadosha* and *medodhatu*.^[4] This condition can lead to

many other diseases if the underlying pathology is not treated properly. Majority of the disease conditions have their base rooted in *Sthoulya*. Until and unless *Sthoulya* is treated the other diseases cannot be managed.

Nidana (causative factors) of *Sthoulya* can be classified as *Aharat- maka Nidana*, *Viharatmaka Nidana*, *Manasika Nidana* and *Anya Nidana*.^[5] In *Ayurveda* management of any disease is divided into three parts a) *Nidana Parivarjana*, b) *Shodana*, c) *Shaman*.^[6] *Acharya Charaka* has mentioned *Guru Cha Atarpana*^[7] as the line of treatment.

CASE REPORT

A 27 year old female patient came to OPD of *Swasthavritta* and *yoga* with complaints of increased body weight since 2 years. Associated with c/o Fatigue with minimal work capacity. Past history revealed that patient was not a known case of hypertension, diabetes mellitus, bronchial asthma, hypothyroidism, PCOS. There is a family history of increased weight and obesity from her maternal side. *Astavidha Pariksha*, *Dasha vidha Pariksha*, systemic and general physical examinations with anthropometry of the patient was done. Investigations showed normal Hematological report but changes were seen in the biochemical tests with special

reference to lipid profile. Considering the examinations, BMI (31.6 Kg/m²), lab investigation findings, patient was diagnosed as obese Class I.

Method: *Atarpana Chikitsa* was adopted and assessment was done before and after treatment.

Setting: Department Of *Swasthavritta* and *Yoga*, OPD and IPD-SDMIAH, Bengaluru.

Table 1: The International Classification of adult underweight, overweight and obesity according to BMI.^[8]

Classification	BMI (kg/m ²)	
	Principal cut-off points	Additional cut-off points
Underweight	<18.50	<18.50
Severe thinness	<16.00	<16.00
Moderate thinness	16.00 - 16.99	16.00 - 16.99
Mild thinness	17.00 - 18.49	17.00 - 18.49
Normal range	18.50 - 24.99	18.50 - 22.99
		23.00 - 24.99
Overweight	≥25.00	≥25.00
Pre-obese	25.00 - 29.99	25.00 - 27.49
		27.50 - 29.99
Obese	≥30.00	≥30.00
Obese class I	30.00 - 34.99	30.00 - 32.49
		32.50 - 34.99
Obese class II	35.00 - 39.99	35.00 - 37.49
		37.50 - 39.99
Obese class III	≥40.00	≥40.00

Table 2: Anthropometry And Personal History before starting the treatment, increased body WEIGHT and BMI can be observed.

B.P.	120/80 mm of Hg
Pulse	74 beats/min
Ht.	164 cms
Wt.	85 kg
BMI	31.6 kg/m ²
Chest Circumference	96 cms
Abdomen Circumference	100 cms
Mid arm Circumference	Rt hand -33 cms, Lt hand -34 cms
Mid-Thigh Circumference	Rt leg -60 cms, Lt leg -57 cms
Waist Circumference	103 cms
Hip Circumference	118 cms
<i>Ahaara</i>	Mixed diet, Non-Veg, once in 7 days.
<i>Vihara</i>	Avyayama, Divaswapna, Sedentary life style.
Appetite	Good
Bowels	Regular, normal in consistency, once in a day.
Micturation	Normal, 2-3 times in Day, 1-2 times in Night
Sleep	Good, sound sleep
Habits	Fond of bakery items, Junk food, sweets and fried items

Table 3: General Physical Examination. Patient had a Bulky appearance, endomorphic built and was well nourished with normal built.

Appearance	Bulky
Built	Endomorphic
Nourishment	Well nourished
Gait	Normal
Pallor	Absent
Icterus	Absent
Cyanosis	Absent
Clubbing	Absent
Edema	Absent
Lymphadenopathy	Absent

Table 4: Systemic Examination, No evident changes were noted.

RS	B/L, NVBS heard
CVS	S1 S2 heard
P/A	SOFT, NAD, Distended due to fat
CNS	Well oriented, conscious to time, place and person.

Investigational history**Table 5: History of Laboratory Investigations.**

HB	10.6 gm %
W.B.C	8,100 cells / cu mm
E.S.R	36mm / hr
Neutrophils	52%
Lymphocytes	40%
Monocytes	01%
Eosinophils	02%
Platelets	2.35 lakhs cells / cu mm
RBC Count	4.48 millions/cu mm
F.B.S	76.2 mg /dl
Blood urea	15.1 mg / dl
Serum creatinine	0.7 mg/ dl

Table 6: Haemogram Report.

P.C.V	35.5%
M.C.V	78.2 fL
M.C.H	24.3 Pg
M.C.H.C	31.1%
RDW	48.5fL

Table 7: Lipid Profile.

Total cholesterol	180.0 mg/dl
H.D.L cholesterol	83.8 mg/dl
L.D.L cholesterol	85.0 mg/dl
Triglycerides	207.0 mg/dl
V.L.D.L cholesterol	41.4 mg/dl

USG ABDOMEN and ECG showed NORMAL study, there were no significant changes noted.

Table 8: Dashavidha Rogi Pareeksha.

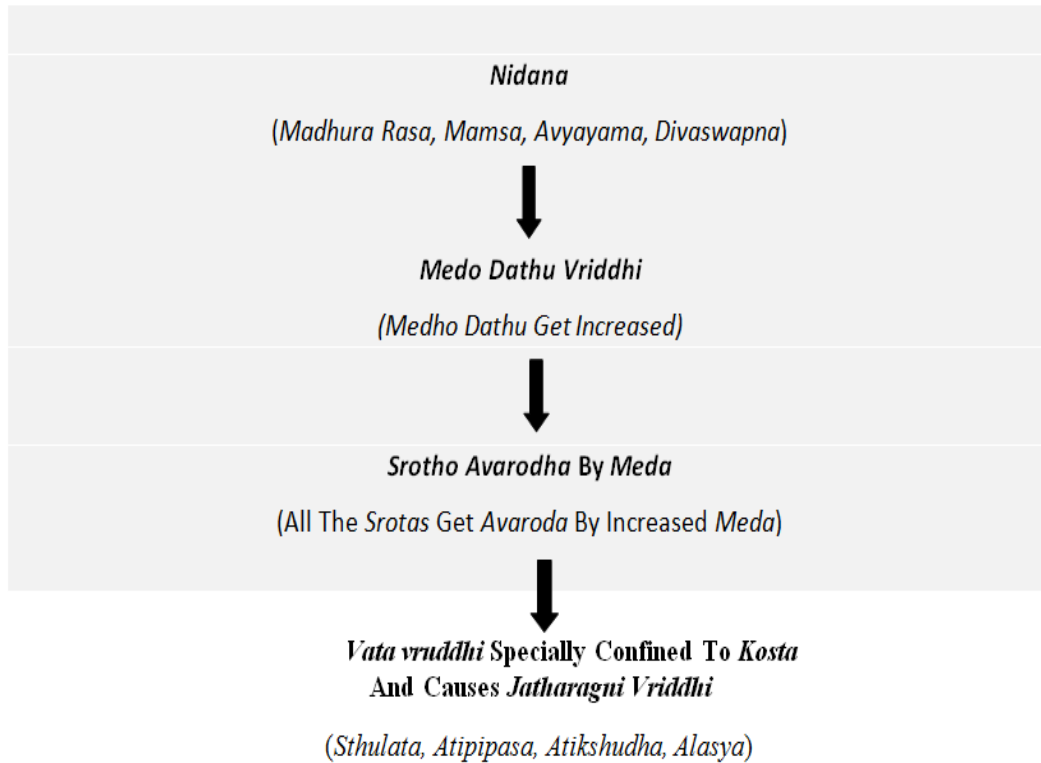
Prakriti	Dwandwaja, Kapha-Pitta	
Vikrita Dosha	Kapha	
Dushya	Rasa, Mamsa and Meda.	
Sara	Madhyama	
Samhanana	Madhyama	
Satva	Madhyama	
Aahara Sakthi	Abhyavarana shakti	Pravara
	Jarana shakti	Pravara
Vyayama Sakthi	Avara	
Satmya	Madyama	
Vaya	Madhyama	
Pramana	Pravara	

Table 9: Astasthan Pareeksha.

Nadi	Prakrita
Mala	Niraama Mala, Prakrita.
Mootra	Prakrita
Jihva	Aliptata
Sabda	Prakrita
Sparsha	Anushna Sheetha
Drik	Prakrita
Aakruti	Sthoola

Table 10: Nidana Panchaka.

Nidana	
<i>Ahara</i>	<i>Madhura, Snigdha Ahara</i> like bakery items, junk foods, Sweets, <i>Mamsa Sevana</i> With More Fat Content
<i>Vihara</i>	<i>Avyayama, Divaswapna, vishama asana</i>
<i>Poorvaroopa</i>	<i>Alasya, Ati Sweda, Shrama</i>
<i>Roopa</i>	Enlargement Of <i>Spik And Udara (Specifically)</i> <i>Javoparodha, Angagaurava, Medovruddhi, Dourbalya, Atikshudha</i>
<i>Upashaya</i>	Nothing Significant.
<i>Anupashaya</i>	<i>Santarpana Janya Ahara</i>

Flow chart 1: Samprapti.**Table 11: Samprapthi Ghataka.**

Udbhava Sthana	Amashaya
<i>Vyakta Sthana</i>	<i>Sarva Shareera</i>
<i>Adhistana</i>	<i>Medo Dhatu.</i>
<i>Roga Marga</i>	<i>Bahya</i>
<i>Agni</i>	<i>Teekshnagni</i>
<i>Dhatwangni</i>	<i>Mandha</i>
<i>Dosha</i>	<i>Kledaka Kapha, Pachaka Pitta, Samana Vata And Vyana Vata</i>
<i>Dushya</i>	<i>Rasa, Mamsa and Medo Dathu</i>
<i>Srotas</i>	<i>Annavaha, Rasavaha Medovaha,</i>
<i>Sroto Dusti</i>	<i>Sanga</i>
<i>Vyadhi avastha</i>	<i>Chirottitha</i>
<i>Sadhya Asadhyata</i>	<i>Krichra Sadhya (Difficult to treat)^[9]</i>

Considering all the examinations done and reported as in the above-mentioned tables the disease was understood and diagnosed as *Sthoulya*. Patients *Agni* and *Bala* were assessed and *Udwardhana* was started initially with *Udwarthana Choorna^[10]* which contains- *Kulatha-4parts, Yava- 4parts, Triphala-2parts, Mudga- 1part,*

Methika- 1part, Sarshapa- 1/4th part. Later *Virechana* and *Shamana Aushadi* were adopted. Diet, *Yoga* and *Accupuncture* were given every day as a part of treatment. Taking into consideration the *Astavidha* and *Dashavidha Pariksha* the treatment plan was scheduled as follows.

Table 12: Treatment Schedule Adapted From 06-07-2020 TO 25-07-2020.

Days	Treatment	Observation
Day 1-7	1. <i>Udwarthana and Bhaspa Sweda</i>	<ul style="list-style-type: none"> • Appetite- Good • Bowel- Passed • Micturation- Passed • Sleep- Sound
	2. Cap. Decrin plus - 2-0-2 [b/f]	
	3. <i>Asanadi kashaya and Varunadi kashaya</i> [5ml Each with 60ml-80ml of water to be taken at morning & evening],	
	4. <i>Yoga and Pranayama,</i>	
	5. Physiotherapy,	
	6. <i>Pathyahara.</i>	
	7. Accupuncture	
Day 1-7	Treatment	<ul style="list-style-type: none"> • Appetite- Good • Bowel- Passed • Micturation- Passed • Sleep- Sound
	1. Salt glow therapy with Triphaladi taila+ Citronella & lemon Grass essential oil+50gm saindhava lavana	
	2. Cap. Decrin plus - 2-0-2 [b/f]	
	3. Asanadi Kashaya & Varunadi Kashaya {5ml each with 60ml-80ml of water to be taken at morning & evening }	
	4. <i>Yoga and Pranayama</i>	
	5. Physiotherapy	
	6. Pathyahara	
7. Accupuncture		
Day 13 – 19	Treatment	<ul style="list-style-type: none"> • Appetite- Good • Bowel- Passed • Micturation- Passed • Sleep- Sound Weight- reduced
	1. <i>Mud bath</i>	
	2. Cap. Decrin plus - 2-0-2 [b/f]	
	3. Asanadi Kashaya & Varunadi Kashaya {5ml each with 60ml-80ml of water to be taken at morning & evening }	
	4. <i>Yoga and Pranayama</i>	
	5. Physiotherapy	
	6. Pathyahara	
7. Accupuncture		
	1. snehapana with Varunadi Ghrita Day 1- 30ml Day 2- 60ml Day 3- 80ml	<ul style="list-style-type: none"> • Appetite- reduced • Bowel- Passed • Micturation- Passed • Sleep- Sound • Weight- reduced
	1. Sarvanga Abhyanga with Triphaladi taila followed by Bashpa sweda. For 2 days.	
Day 20	Treatment	<ul style="list-style-type: none"> • Virechana Aushadi given 09:15am Till 6 pm- no. of Vegas- 14
	1. Sarvanga Abhyanga with Trphaladi taila followed by Bashpa sweda- day	
	2. 3, followed by <i>Virechana</i> with <i>Trivruth lehya</i> - 60gm and <i>milk</i> -150ml followed by ushna jalapana every half an hour	

Based on the *Agni* and *Vyadhi Avastha* the *Diet* was planned and prescribed. The schedule of the *Diet* plan prescribed is illustrated in the following:

Table 13: Scheduled Diet During and After Treatment.

Day 1-7	<ul style="list-style-type: none"> 6.30am - <i>Lemon honey juice</i>- 250 ml 8.30am - <i>Ragi Ganji</i> - upto 200 ml 10.30am- <i>Lemon Honey juice</i>- 200ml 1.30pm - 1 <i>chapathi</i> & boiled veg , <i>Shunti Sidha Takra</i>- 250 ml 4.30 pm - <i>Kushmanda Rasa</i>- 200 ml 7.30 pm - 1 <i>Ragi dosa</i> & boiled veg.
Day 8 –16	<ul style="list-style-type: none"> 6.30am - <i>Kushmanda Rasa</i> - 100 ml 8.30a - <i>Mudga Yusha</i>- 200 ml 11.00am - <i>Lemon Honey juice</i> - 150ml 1.30pm - <i>Shunti Sidha Takra</i>- 250 ml and 1 <i>chapathi</i> & boiled veg 4.30 pm - <i>Papaya salad</i>- 200 ml/gm 7.30 pm - 2 <i>Wheat dosa</i> & boiled veg.
Day 17- 19	<ul style="list-style-type: none"> 7.am – <i>panchakola siddha jala</i>- 100 ml Rice Ganji when patient feels hungry 12.00pm - <i>Jeeraka Sidha Takra</i>- 150ml 1.30pm -7.30 pm- advised to take <i>ushna jala</i> in sips– up to 750ml 3.30pm – <i>Kruta yusha</i> – 200ml 7.30pm - <i>Anna, Rasam</i>.
Day 20	<ul style="list-style-type: none"> <i>Virechana</i> Advised <i>Peya</i> after <i>Vegas</i> stopped <i>Samsarjana Karma</i> up to 3 days Day 1-<i>Peya</i>, Day 2-<i>Peya</i>, Day 3-<i>Kichidi</i>

Types of *Asanas* and *Pranayama* including physiotherapy are listed below

Table 14: Asanas, Pranayama, And Accupuncture Advised.

❖ <i>Asanas</i> advised	Names
• Warm up exercises	• Loosening exercises from eye ball rotation to ankle rotation.
• <i>Surya Namaskara</i>	• 12 rounds.
• Standing posture <i>Asana</i>	• <i>Trikonasana, Ardha Kati Chakrasana, Arda Chak- rasana.</i>
• Sitting posture <i>Asana</i>	• <i>Vajrasana, Gomukhasana, Ardha Matsyendrasana.</i>
• Supine posture <i>Asana</i>	• <i>Pavana Muktasana.</i>
• Prone posture <i>Asana</i>	• <i>Bhujangasana, Dhanurasana.</i> • <i>Shavasana.</i>
❖ <i>Pranayama</i> advised	• <i>Kapalabhati,</i> • <i>Bhastrika,</i> • <i>Surya- Anuloma Viloma,</i> • <i>Surya Bhedana,</i> • <i>Nadi Shudhi,</i> • <i>Bhramari.</i>

After the scheduled treatment patient was assessed for any changes before and after treatment with special

reference to anthropometric measurements. Details are noted in the tabular column as follows:

Table 15: Assessment of Anthropometry Changes before and after treatment.

Observation	Before Treatment	After Treatment
WT.	85 kg	70 kg
BMI	31.6 kg/m ²	26 kg/m ²
A.C	100 cms	96 cms
M.A.C	Rt hand-33 cms Lt hand-34 cms	Rt hand-31 cms Lt hand-32 cms
M.T.C	Rt leg-60 cms Lt leg-57 cms	Rt leg-58 cms Lt leg-55 cms
W.C	103 cms	100 cms
H. C	118 cms	116 cms
W/H	0.87	0.86

RESULTS

On the day of admission dated 06.07.2020 patient's weight was 85kg, which got reduced to 70 kg at the time of discharge on 25.07.2020. The results showed that there were significant changes in reduction of weight by **15 kgs in 20 days**.

Patient was discharged after Virechana, advised samsarjana to be followed. She was advised to continue *Shamana Aushadi*, diet and exercises (*Vyayama, Asanas, Pranayama*) for 45 days and asked to visit for follow up.

Medicines advised on discharge

1. Cap – Garcini 2-0-2 [b/f],
2. *Asanadi kashaya* and *Varunadikashaya* 5 ml each with 60-80 ml of water twice daily
3. Advised to continue diet, *Yoga* and exercises.

DISCUSSION

According to *Ayurveda* the patient was diagnosed as a case of *Sthoulya*, predominantly *Kapha and Vata* as *Vikrita Doshas* and *Rasa, Mamsa, Medha* as *Vikrita Dushyas*. Patient adopted sedentary life style, lack of exercises along with excess intake of *Madhura Snigdha Ahara* and improper dietary practices. Clinically patient presented with signs and symptoms such as increased body weight, fatigue, loss of interest in work. Considering *Sthoulya* to be the *Santarpana Janya Vyadhi* the line of treatment mainly includes *Rukshana Karma* [*Udwarthana*], *Virechana, Vyayama, Upavasa, Swedana, Shamana Aushadis* along with these also Naturopathy treatment modalities like Mud Bath, Salt glow Therapy which helps in reducing the weight were adopted and Accupuncture treatment which helps in triggering the specific energy points to increase the metabolism in obese patients was an added benefit. Significant changes was observed, patient was advised to continue the oral medications for a month and was asked to continue the diet and *Yoga* regularly and was asked for follow up.

CONCLUSION

Based on the signs and symptoms, *Sthoulya* was treated with *Sarvanga Udwartana* and *Swedana*, Mudbath therapy, Salt glow Therapy, Accupuncture Therapy, *Yoga, Snehapana, Virechana Karma* followed by the *Vishista Nidana Parivarjana* in the form of *Ahara Vihara* and *Aushada this multitude approach* showed remarkable changes in reducing the weight of the patient.

REFERENCES

1. [Internet]. Available from: <http://Indiatoday.intoday.in>>India the third most obese country in the world.mail today, 2014; 8.
2. [Internet]. Available from:<http://The wall street journal>, India has growing obesity problem. blogs.wsj.com/indiarealtime, 2016; 4.
3. Bhagwan das R.k Sharma, Charaka Sam- hita. 1st ed. Varnanasi: Chaukamba San- skrit series; Santarpaniya Adhyaya, 2009; 23: 395.
4. [Internet]. Available from: Prachi Mishra Et Al:

Role of Ayurveda in the Management of Obe- sity (*Sthoulya*) IAMJ, 2017. http://www.iamj.in/posts/images/upload/244_247.pdf

5. Bhagwan das R.k Sharma, Charaka Sam- hita. 1st ed. Varanasi: Chaukamba Sanskrit series; Santarpaniya Adhyaya, 2009; 3: 395.
6. Bhagwan das R.k Sharma, Charaka Sam- hita. 1st ed. Varanasi: Chaukamba San- skrit Series; Astuninditiya Adhyaya, 2009; 21: 375.
7. Bhagwan das R.k Sharma, Charaka Sam- hita. 1st ed. Varanasi: Chaukamba San- skrit Series; Astuninditiya Adhyaya, 2009; 21: 378.
8. BMI chart For Obesity [Internet]. WHO, 2017. Available from: http://apps.who.int/bmi/index.jsp?introPage=intro_3.html#
9. Bhagwan das R.k Sharma, Charaka Sam- hita. 1st ed. Varanasi: Chaukamba San skrit Series, Astuninditiya Adhyaya, 2004; 21: 377. ISBN:81-7080-012-9.
10. Lohith B.A, Text Book on PanchaKarama. 1st ed. Varanasi: Chaukamba Orientalia;, V Snehana Adhyaya, 2016; 2: 107-08. ISSN: 978-81-7637-365-4.