

STHAULYA AS LIFE STYLE DISORDER ALONG WITH UPDRAVA - A CASE STUDY

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ABSTRACT

According to Jeffrey S.F. and Eleftheria M.F. (2015)^[1] Obesity is a state of excess adipose tissue mass. Robert F.K. (2015)^[2] stated that Obesity is associated with an increased risk of multiple health problems, including hypertension, type 2 diabetes, dyslipidemia, obstructive sleep apnea, non-alcoholic fatty liver disease, degenerative joint disease, and some malignancies (comorbid complications). Three key anthropometric measurements are important in evaluating the degree of obesity: weight, height, and waist circumference. The primary goals of treatment are to improve obesity-related comorbid conditions and to reduce the risk of developing future comorbidities.

Life style management, diet therapy etc play important role in management. Obesity is termed as *Sthaulya* in *Ayurved*. Charaka has described *Sthaulya* as a disease of accumulation of excessive *Meda*, *Mansa Dhatu*. (C.S.21/9)^[3] Charaka described eight *Dosha* of *Sthaulya* like *Javoparodha*, *Daurbalya*, *Daurgandhya* etc.(C.S..21/4).^[4] Vagbhata has mentioned that there is no medicine for management of *Sthaulya* (A.H.S.14/31).^[5] Therefore, solution for such *Asadhya/Kastasadhya Vyadhi* either by Herbal drugs, *Panchkarma*, *Pathyas*, *Yogasana* and *Vyayam* mentioned in Ayurvedic text are kept in mind. A case recorded and was treated in our institute. Results obtained were encouraging which are presented in full paper.

KEYWORDS: According to Jeffrey S.F. and Eleftheria *Daurbalya*, *Daurgandhya* etc, *Sthaulya*, *Virechana*, *Vranadhupana*, *Updrava*.

INTRODUCTION

Obesity is a state of excess adipose tissue mass. BMI of 30 is most commonly used as a threshold for obesity in both men and women. The term overweight (rather than obese) to describe individuals with BMIs between 25 and 30. The distribution of adipose tissue in different anatomic depots also has substantial implications for morbidity. Specifically, intraabdominal and abdominal subcutaneous fat have more significance than subcutaneous fat present in the buttocks and lower extremities. The waist-to-hip ratio, with a ratio >0.9 in women and >1.0 in men being abnormal in case of obesity.

Intraabdominal adipocytes are more lipolytically active than those from other depots. Release of free fatty acids into the portal circulation has adverse metabolic actions, especially on the liver. Adipokines and cytokines that are differentially secreted by adipocyte depots may play a role in the systemic complications of obesity.

Obesity in India has reached epidemic proportion in the 21st century with morbid obesity affecting 5% of countries population. ([https://en.m.wikipedia.org/wiki/obesity-in India](https://en.m.wikipedia.org/wiki/obesity-in_India)).^[6]

Park K. (2015)^[7] expressed his views that at least 3.4 million adults die each year as result of being overweight or obese. In addition, 44 percent of diabetes burden, 23 percent of ischemic heart disease burden and between 7 to 41 percent burden of certain cancer are attributed to overweight and obesity.

Robert F.K. (2015)^[2] Life style management, diet therapy, physical activity therapy, behavioural therapy, pharmacotherapy, centrally acting anorexiant/peripherally acting medications, anti-obesity drug and bariatric surgical procedures are also play important role in management.

Obesity can be correlate with *Sthaulya* in Ayurveda. Charak mentioned *Sthaulya* and *Krish* as *Nindit* (C.S.21/3).^[8] Charak stated following *Hetu* for *Sthaulya* i.e. 1. *Atisampurnat* [Excess food intake] 2. *Guru, Madhur, Shita, Snigdha Guna* dominant *Aahar, Payo* [Excess Milk and milk product consumption] 3. *Avyayam* [No exercise] 4. *Avyavaya* [No/Absence Sexual life] 5. *Divaswapa* [Sleep in day time] 6. *Harshat* [Person always living happy] 7. *Achinta* [Stress free life] 8. *Bijaswabhava* [Genetic factor].

Sthaulya Vyadhi said to be *Nindit* because of following eight things: 1. *Ayuhrrasa* [Decreased age] 2. *Javoparodha* [Decreased promptness] 3. *Krichavyavayta* [Painful conception] 4. *Doorbalya* [Weakness] 5. *Daurgandhya* [Foul smell] 6. *Svedabadha* [Excessive sweating] 7. *Kshudhitatimatra* [Excessive Hunger] 8. *Pipasaatiyoga* [Excessive Thrust] (C.S.21/4).^[4] In *Sthaulya* there is vitiation of *Vikrut Meda Dhatu* dominantly leading to *Stroto Avrodha* and further responsible for *Kshaya* of *Uttarotar Dhatu* i.e. *Asthi*, *Majja* and *Shukra*. These Vitiated *Vikrut Meda Dhatu* is responsible for *Strothoavrodha* which further causing *Vata Prakopa* specially In *Koshta* and vitiate *Agni*. These *Prakopit Vikrut Agni* is responsible for Fast metabolism of food taken by person. Therefore, person taking excessive food frequently or repeatedly. If person not get meal at proper time leading to disorders. These *Agni* and *Vikrut Vayu* is responsible for formation of comorbid complications of obesity i.e. *Updrava* in *Sthaulya* (C.S.21/4).^[4]

Excess accumulation of *Meda* and *Mansa* is accountable for *Chala Sphika*, *Udar* and *Sthan*. No energy according to body mass such person is to be said *Sthaulya* i.e. obese according Ayurveda. Charak stated that *Sthaulya* and *Krish* person are always diseased. Comparatively *Krish* is better to treat than *Sthaulya*. Same disease if develop in both then it is very difficult to treat in case of *Sthaulya* (C.S.21/16-17).^[9]

Vagbhata mention that *Agni*, *Vayu* and *Meda* is *Vikrut* in *Sthaulya* so management required is totally opposite. For *Agni* and *Vayu Bhrihana Chikitsa* is required but it is contraindicated or totally opposite for *Meda*. Similarly, *Langhana* is *Chikitsa* for *Meda* but it vitiates *Vayu* and *Agni* so that *Sthaulya* is difficult to treat because of these controversy (A.H.S.14/31).^[5]

Charak explained management of *Sthaulya* as by giving *Guru* [food difficult to digest] and use of *Atarpan* [Dravya responsible to reduce *Meda Dhatu*] *Aushadi*, *Aahar* and *Vihar*. For example, *Madhu* help to control *Vikrut Vayu* and *Agni* by its *Guru Guna* and responsible for *Medo Kshaya* by its *Atarpan* property, *Prashatika* and *Priyangu* etc are *Atarpan Dravya*. There are some *Laghu Dravya* help in *Atarpana Karma* such *Dravya* become *Guru Gunatmak* by *Sanskar* explain in *Aaharrvishesaaytana* in Ayurvedic science (C.V.1/21).^[10]

A Case Profile

61 years old, male patient B/B relative and admitted in GACH, Nagpur in Kayachikitsa department had.

Chief Complaint

Chankramanotar Shwasvridhi, Shwaskashtata, Svedadhikya, Nidradhikya, Udarlambanam, Dakshin Padpradeshi Vran Avum Aniyantrit Mutra Pravriti (Urinary Incontinence) since 1yr along with *Skapha Kaas, Malavsthamb* in the last 8 days.

Past H/O

K/C/O HTN and DM-2 [medication hold due to normal limit 2 year ago], K/C/O Seasonal Bronchial asthma, H/O RTA, Contused Lacerated Wound overhead and giddiness in 1983, H/O Blood transfusion in 1983, H/O Bleeding Piles 6 mon ago, H/O Burn over bilateral lower limb 25 years ago and Incision and Drainage of left lower limb done for sepsis in 2009.

Family History: *Matrij Kula* had H/O Bronchial Asthma, *Pitrij Kula* had H/O HTN.

Vaiyaktik Vrittant

Aahar: Patient taken mixed type of food (Non-veg once/week) in *Pravar Matra, Madhur Avum Katu Rasa Pradhan* with dominant *Ushna, Snigdha, Tikshna, Ruksha Guna* and had habbit of *Vishamashan, Paryushit Aahar, Adyashana*.

Vihara: Sedentary life Style [Cook in hotel].

Vyasan: Alcohol i.e *Madya* consumption 3 to 4 times / week in quantity of 180 ml, Tobacco 1 times/day occasionally, Tea 7 times /day.

Asthavidh Parikshana

Nadi: Right 56 / min, Left 70/ min Rhythm- Irregular, *Mala-Malbadhata, Mutra- Varam Var Mutra Pravriti* [urinary incontinence], *Jivha- Sama, Shabda-Spashta, Sparsha-Samshitoshna Drika- Prakrit, Aakriti- Sthul* {BMI -40.6} Obes Class 3.

Urah Parikshana: No abnormality detected.

Udar Parikshana: *Udarvridi, Udarlambanam*.

Investigations

CBC with ESR: Hb%: 12.4 gm/dl, TLC: 6000/cumm, Platlets: 1.48 lac/cumm, BSL Fasting: 76 mg/dl, Post-prandial: 136 mg/dl.

LFT: Total protein- 5.41gm/dl serum Albumin- 3.47gm/dl.

KFT: WNL, Serum sodium and Potassium: WNL.

Lipid profile: Triglycerides: 100 mg/dl, HDL: 35mg/dl, Total cholesterol: 131 mg/dl, LDL: 76 mg/dl.

Urine: Albumin: Trace, Sugar: Absent.

TFT: WNL.

USG Abdomen: 1. Hepatomegaly with Grade 1 fatty changes.

2. Cholelithiasis

2 D Echo: LVEF 60%, Grade 1 LV dysfunction, Trivial TR and rest: WNL.

Management

Initially in acute condition for breathlessness nebulization with asthalin in morning and duoline in evening was given for 5 days. Along with that *Karpurdhara* four drops for inhalation with water vaporizer three times a day was given. Simultaneously syrup. Unicough 10 ml BID was given. *Rukshanapachana Kashaya* 20 ml twice a day was given daily till *Abhyantar Snehpan for Virechan* was advised. At the same *Sukshma Triphala Vati* 2 BID along with *Shwaskutar Rasa* 1 TDS which was hold after 14 days after relieving of symptoms and Protifit powder 5 gm BID with milk was given for 5 days (Considering the decreased level of Total protein and albumin).

Panchvalkal Kwath for *Vranadhavnartha* twice a day, *Vranadhupana* with *Vranadhupana Varti* then local application of *Karanja* and *Jatyadi Taila* after *Vranadhupana* and *Vranropaka Lepa* is applied over wound for 8 days in afternoon. Simultaneously, *Jalokavcharana* over wound site done thrice at interval of 7 days.

After *Dipana*, *Pachana Chikitsa* patient planned for *Shodhan Chikitsa (Virechan)*. *Abhyantar Snehapana* was advised with *Triphaladi Tail* in *Vardhmanmatra* (Ck.S. 36 /31-33).^[11] First *Virechan* was given with *Ichhabhedi Rasa* 250 mg stat in morning at 8.00 am with *Shita Jala*. (*Bhaishyajya Ratanavali* 40/65-66)^[12] *Avar Shudhi* was obtained and then *Shamana Aushadi* was given i.e. *Mahamanjistadi Kwath* 20ml BD, *Arogyavardhini Vati* 2 BD, *Nimbadikwathghan Vati* 2BD, Tab. Abana 2BD, Velosulf powder for local application over wound. After 12 days *Virechan* again planned with *Abhyantar Snehapana* with *Panchtikta Ghrita* in *Vardhmanmatra*. Then, *Virechan* was given with *Ichhabhedi Rasa* 250 mg stat in morning at 8.00 am with *Shita Jala*. Again, *Avar Shudhi* was obtained and 3 days *Sansarjan Krama* for next 3 days was advised (*A.H.S.18/28-29*).^[13] Then, *Rukshanapachana Kashaya* 20 ml BD along with *Triphaladi Vati* 2 BD was given as *Shaman* before discharge.

OBSERVATIONS AND RESULT**Table 1: Table Showing the Effect of Therapy on BMI-Basal Metabolic Rate.**

S.N.	DATE	WEIGHT [Kg]	HEIGHT [cm]	BMI
1.	19/07/2017	104	160	40.6
2.	04/8/2017	95	160	37.1
3.	09/8/2017	93	160	36.3
4.	13/8/2017	93	160	36.3
5.	19/8/2017	92	160	35.9
6.	17/9/2017	92	160	35.9
7.	20/9/2017	91 [Before Virechan] 90 [After Virechan]	160	35.5 35.2

Table 2: Table Showing the Effect of Therapy on Respiratory rate, SPO₂, Pulse Rate and Blood pressure.

S.N.	DATE	RR/MIN	SPO ₂	PR/MIN	BP [mmHg]
1.	21/7/2017	32	82	104	138/80
2.	22/7/2017	32	82	110	140/80
3.	23/7/2017	31	84	101	140/80
4.	24/7/2017	33	84	90	150/90
5.	25/7/2017	28	91	110	150/90
6.	26/7/2017	28	87	104	144/90
7.	27/7/2017	26	90	90	138/88
8.	28/7/2017	26	94	82	138/88
9.	29/7/2017	25	92	80	140/80
10.	30/7/2017	21	95	74	140/80
11.	31/7/2017	21	95	80	136/80
12.	01/8/2017	20	95	80	130/80
13.	02/8/2017	20	94	81	130/80
14.	03/8/2017	18	94	84	130/80
15.	04/8/2017	18	93	82	130/80
16.	05/8/2017	18	92	84	120/80
17.	06/8/2017	18	92	88	130/80
18.	07/8/2017	18	94	84	130/80

Table 3: Table Showing the Effect of Therapy on Waist-Hip Ratio.

S.N.	Date	Height (cm)	Waist (cm)	Hip (cm)	Waist: Hip
1.	19/7/2017	160	118	124	0.9516
2.	4/8/2017	160	118	124	0.9516
3.	9/8/2017	160	116	123	0.9430
4.	19/8/2017	160	114	123	0.9268
5.	20/9/2017	160	110	122	0.9016

Table 4: Table Showing the Effect of Therapy on Walk Assessment.

S.N.	DATE	DURATION OF WALK	S.N.	DATE	DURATION OF WALK
1.	21/7/2017	1 Min	10.	30/7/2017	5 Min
2.	22/7/2017	2.15 Min	11.	31/7/2017	5 Min
3.	23/7/2017	2 Min	12.	01/8/2017	6 Min
4.	24/7/2017	2 Min	13.	02/8/2017	8 Min
5.	25/7/2017	3 Min	14.	03/8/2017	10 Min
6.	26/7/2017	2.15 Min	15.	04/8/2017	10 Min
7.	27/7/2017	2.30 Min	16.	05/8/2017	10 Min
8.	28/7/2017	2.30 Min	17.	06/8/2017	>10 Min
9.	29/7/2017	3 Min	18.	07/8/2017	Normal walk without dyspnoea

Table-5: Table Showing the Effect of Therapy PEFR-Peak Expiratory Flow Rate.

S.N.	Peak Expiratory Flow Rate B.T.	Peak Expiratory Flow Rate A.T.
1.	Unable to perform	300 L/ min

Table-1 shows that there is reduction in body weight from 104 kg to 90 kg i.e.14 kg weight reduction after treatment was noted. **Table-2** shows markedly reduction in Respiratory rate from 32/min to 18/min shows that there is improvement in tachypnoea **Table-3** highlighted that there were marked reduction is noted in a waist hip ratio from 0.9516 to 0.9016. **Table-4** shows that there was markedly improvement in walk assessment of patient. B.T. patient can walk only for 1 min with dyspnoea. A.T. it changes, and patient can walk >10 min without dyspnoea **Table-5** shows that Patient is unable to perform peak expiratory flow rate but A.T. it enhances to 300 L/min.

DISCUSSION

According to *Ayurveda*, *Sthaulya* is disease responsible for many comorbid complications such as in our case *Dusta Vrana* (varicose ulcer), *Shwaskashtata* (Dyspnoea) and *Nidraadhikya* (Sleep apnea) presents as comorbid complications.

As we know main function of *Prana Vayu* is “*Jiva Dharana*”. *Pran Vayu* obstructed by *Dushit Kapha* is responsible for *Shwaskashtata* (C.C17/45).^[13] so, for purpose of *Kapha Vilayana* in *Avrudh Pranav Strotas* was done by *Karpurdhara* and syrup. unicough and *Stroto Vispharan* i.e bronchodilation for proper *Vahan* of *Pran Vayu* was there with help of nebulization was achieved. In these case *Strotos Avrodh* is also further responsible for vitiation of *Vata* which worsen the condition in *Sthaulya* by *Agni Sandhukshan Karma* as said in *Samprapti* of *Sthaulya*. (C.S.21/4)^[4] *Avrodha* because of *Kapha Dosha* is also reduced

because of *Shwaskutar Rasa* dominantly containing *Maricha* helps to reduce *Kapha* by its *Shoshana* property (*Bhaishyaja Ratanavali* 16/46-50).^[15]

Initially *Rukshanapachana Chikitsa* (A.H.S.16/37)^[16] was used for *Dusta Meda* and *Kapha* responsible for all pathology to reduce *Stroto Avrodh*. *Virechan* was planned to remove *Vikrit Meda* and *Kapha* from *Strotas*. (C.S.23/8).^[17] As result *Prakop* of *Vata Dosha* responsible for *Agni Sandukshana* reduces and proper nourishment of *Uttarotar Dhatu* like *Asthi*, *Majja* and *Shukra* takes place and reduces the symptoms of *Sthaulya*.

For *Dusta Vrana Sthanik Dosh Dusti* was removed by *Jalokaavcharana*. Use of *Panchvalkal Kwath* where *Panchvalkal* has property of wound healing i.e. by *Vrana Shodhana* and *Ropana Karma*, *Vrana Ropaka Kalk* and *Tail* (*Jatyadi* and *Karanj*) for *Ropana Karma* and *Kandughna Karma*. Diet of patient was given to treatment of Ayurveda i.e. *Gura* (Dravya difficult to digest) and *Atarpana* (Helpful in *Medakshaya*) for example: *Madhu*, *Priyangu*, *Yava*, *Kulath Yush*, *Protifit Powder* (also helpful in wound healing) etc. (C.S.21/20).^[18]

All these management mainly helps by *Sampraptibhang* i.e. breakdown of Pathogenesis along with daily excersice for 20-30 minutes help in management of *Sthaulya*.

CONCLUSION

The combination of this Ayurvedic treatment can be helpful in treating the cases of *Sthaulya* along with *Updrava* like *Dusta Vrana*, *Shwaskastata* and *Nidradhikya*. Prolonged duration of treatment might have been given in such cases, however the trial was on only one patient and multiple such cases can be taken for study by similar line of management.

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