



PHYSIOLOGICAL STUDY MEDOVRIDDHI (OVERWEIGHT) & LEKHANIYA GANA KASHAYA IN THE MANAGEMENT OF MEDOVRIDDHI (OVERWEIGHT) INDIVIDUALS: A CASE SERIES STUDY

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ABSTRACT

Overweight/ obesity is one of the biggest health concerns of communities across the world. It can be correlated to the condition called medovridhhi/ sthoulya in Ayurveda. Sthoulya is due to vitiation of medo dhatu which is caused either by malfunctioning of medodhatvagni or over supply of medovridhikara dravyas. Lekhaniya gana kashaya, mentioned in Charaka Samhita, has kapha-medohara and lekhan nature. A case series study has been undertaken to observe the response of individuals with medovridhhi sthoulya and its complications, to lekhan nature. Participants with overweight (sthoulya) were taken in the study. Diagnosis of overweight was done on the basis of body mass index i.e. BMI between 25 and 29.9 kg/m². BMI, waist/hip ratio, body fat %, sthoulya problems and medodhatu vitiation were the assessment parameters. Lekhaniya gana as phanta kashaya was administered to the participants for 21 days early morning. Phanta kashaya kalpana was preferred since it was easy to prepare. Post administration assessments of most of the criteria were found reduced. There was reduction in BMI, waist/hip ratio, body fat % after the intake of the phanta kashaya. There was reduction in fatigue.

KEYWORDS: Medovridhhi, Sthoulya, Lekhaniya gana kashaya, BMI.

INTRODUCTION

The purpose of Ayurveda is to protect health of the healthy persons and to improve disorders in the diseased, prevention of disease is the primary focus of Ayurveda and secondly the science of curing diseases.

According to WHO report 2008, obesity is considered as one among the ten selected health risks. National institute of health identifies overweight as a BMI (body mass index) of 25 to 29.9 kg/m². Overweight or obesity can be compared to the condition called medovridhhi sthoulya in Ayurveda. Sthoulya is due to vitiation of medodhatu which is caused either by malfunctioning of medodhatvagni² or oversupply of medovridhikara dravyas. It is considered as one of the santarpantha vikaras in Ayurveda³. Sthoulya is one among kapha predominant diseases (sleshma nanatmaja) involving kapha and medas as main dosha and dushya in the pathogenesis. Acharya Charaka has described sthoulya under eight undesirable constitutions (ashtanidita)⁴. Sages suggest that sthoulya is a bahudoshaja disease, which further proves that it provides the platform for so many hazards like diabetes, hypertension, heart disease, osteoarthritis, infertility, impotency as well as

psychological disorders like stress, anxiety, depression, etc. These indicate the weakening of the various body systems which in turn affects the physiological equilibrium.

Lekhana is a process which results in desiccation of all excess dosha, dhatu and mala by scraping or removal⁶. Lekhaniya gana according to Charaka Samhita is a combination of 10 drugs which have the properties of lekhan and soshana⁷. Researchers have proven the lipolytic action of most of the drugs of this gana. The authors report five cases of medovridhhi (sthoulya), which was observed by using lekhan nature kashaya, as phanta preparation, to analyze its effect in the management of the condition.

Physiological Study Ayurvedic & Modern View Formation of Meda

When mamsadhatu takes its start in mamsavaha strotas, mamsadhatvagni acts on its, nutrients coming from aharasa and from raktavahastrotas. Mamsadhatu is produced in mamsavaha strotas. Part of mamsadhatu reaches next strotas that is medovah strotas. It takes part in making of medodhatu. Nutrients coming from

ahararasa and from mamsavaha strotas are acted upon, by medodhatwagni and give rise to medodhatu proper. Form this medodhatu updhathu is generated. mala of medodhatu gets also produced.

Medodhatu is fluidly dhatu as it is extremely unctuous and only mahabhuta unctuous in property is apa mahabhuta. from of extreme hazards of drugs. In this regard approach of this study is to give safer, comprehensive and cost effective for treating medovridhhi. Parthiva mamsadhatu, to produce fluidly medodhatu; apa mahabhuta with its converting power usma is needed. This apa brings with it, its unctuous property. It this property is intensified by teja, unctuous medodhatu is produced.^[27] As per law of nourishment of dhatu, medodhatu is nourished by three ways, as mentioned earlier. medodhatwagni acts on nutrients reaching its strotas, giving rise to medodhatu. According to concept of vaghbhata²⁸ Meda is main dushya which is responsible for medovridhhi. Due to meda dhatwagnimandya excessive formation of meda.

Physical And Chemical Properties Of Medodhatu

Medodhatu is soft, unctuous, heavy, smooth, mobile and white in colour. Medodhatu is produced when mamsadhatwagni acts upon nutrients. It is heavy, unctuous, it offers strength to the body and the makes the body firm. medodhatu is not as steady as mamsa. It is also whiter than mamsa.^[29]

Composition (Swarupa) of Meda Dhatu

In presence of ambuguna snigdhatu of medadhatu increased quantitatively and qualitatively. due to presence of pruthvi and jala mahabhuta. meda dhatu gets atiguruta, atisnigdhatu, pichilata, mruduta, shweta varna and strength 30.

Concept of Vriddhi Medadhatu Vriddhi

Due to deposition of meda dhatu there are symptoms like snigdhatu in the body, vriddhi of udara and sphika. and some other medoroga arise. like kasa shwasa and dourgandhya 40. pendulous hanging buttocks, breast and abdomen due to excess accumulation of fat resulting in increasing breathing on exertion and cough⁴¹

B) Modern Review Of Overweight Aetiology Of Overweight

- Age & sex:
- Socio-economic status:
- Alcohol:
- Smoking:
- Urbanization:
- Drugs influences:
- Genetic history:
- Psychological factors:
- Physical activity

Pathogenesis Of Overweight

- 1) Excessive lipid deposition due to Increased food intake
- Hypothalamic lesion
- Adipose cell hyperplasia
- 2) Diminished lipid mobilization
- 3) Diminished lipid utilization

A Brief Note on / Lipids

Basic Concept Of fat / Adipose

Theory of meda from modern view a fat is main condition of the body. lipids are sets of organic substance of fatty nature, insoluble in water but soluble in fat solvent, lipids are mostly used up in the form of neutral fats, which are also known as triglycerides, triglycerides are made up of glycerol and free fatty acids. which are used during metabolism by living organisms.

A. The two types of fat in the body are

1. Essential fat

It is needed for normal physiological and biological functioning. it is found in bone marrow, the brain, muscles, the spinal cord and other internal organs.

2. Nonessential fat has three main functions

- 1) As an insulator to retain body heat
- 2) As an energy substrate during rest and exercise
- 3) As padding against trauma

AIM AND OBJECTIVES

AIM: Physiological study of medovridhhi (overweight) & lekhanaya gana kashaya in the management of medovridhhi individual: A case series study.

Objectives

- 1) To study the physiological aspect of Medovridhhi
- 2) To study the effect of lekhanaya gan kashaya in Medovridhhi

MATERIALS AND METHODS

Diagnostic Criteria Participants in the age group 18 to 50 years and of both genders were taken into consideration. Diagnosis of overweight was done on the basis of body mass index. Individuals having body mass index (BMI) of 25 to 29.9 kg/m² were considered as overweight. BMI, waist/hip ratio, body fat %, sthoulya problems and medodhatu vitiation were the assessment parameters. Body composition monitor was used to check the BMI, body fat percentage. Problems of sthoulyata were assessed on the basis of gradation of symptoms. Assessment of vitiation of medodhatu was also done based on symptom gradation. Hip ratio was calculated by the standard measuring tap.

Table 1: Problems Caused By Being medovridhhi Overweight (Sthoulya) Chlatva of sphik, udara and stana.

Absence of chalatva	0
A little visible movement (in above areas) after rapid movement	1
A little visible movement(in above areas) after moderate movement	2
Movement (in the areas) after mild movement	3
Movement (in the areas) even after changing posture.	4

Absence of calatva

0

A little visible movement (in above areas) after rapid movement

1

A little visible movement (in above areas) after moderate movement

2

Movement (in the areas) after mild movement

3

Movement (in the areas) even after changing posture.

4

Swedadhikya (perspiration)

Sweating after heavy work and fast movement or in hot weather	0
Profuse sweating after moderate work and movement.	1
Sweating after alittle work and movement (stepping ladder etc)	2
Profuse sweating after a little work and movement	3
Sweating even at rest or in cold weather	4
Sweating after heavy work and fast movement or in hot weather	0
Profuse sweating after moderate work and movement.	1
Sweating after alittle work and movement (stepping ladder etc)	2
Profuse sweating after a little work and movement	3
Sweating even at rest or in cold weather	4

Kshudha-adhikya (increased appetite)

As usual/routine	0
Slightly increased (1 meal extra with routine diet)	1
Moderately increased (2 meals extra with routine diet)	2
Markedly increased (3 meals extra with routine diet)	3
As usual/routine	0
Slightly increased (1 meal extra with routine diet)	1
Moderately increased (2 meals extra with routine diet)	2
Markedly increased (3 meals extra with routine diet)	3

Pipasa-Adhikya (increased thirst)

Feeling of thirst (7-8 times/24 hours) and relieved by drinking water	0
Feeling of moderate thirst (>9-11 times/24 hours) and relieved by drinking water	1
Feeling of excess thirst (>11-13 times/24 hours) not relieved by drinking water	2
Feeling of severe thirst (>13 times/24 hours) not relieved by drinking water	3
Feeling of thirst (7-8 times/24 hours) and relieved by drinking water	0
Feeling of moderate thirst (>9-11 times/24 hours) and relieved by drinking water	1
Feeling of excess thirst (>11-13 times/24 hours) not relieved by drinking water	2
Feeling of severe thirst (>13 times/24 hours) not relieved by drinking water	3

Table 2: Assessment of vitiation of medodhatu.

Criteria	1	2	3
Nature of perpiration	Not much perspiration	Normal perpiration	Increased perspiration even in slight temperature variation
Nature of body odour	No particular unpleasant body odour even after sweating	Body odour present in heavy sweating	Increased Body odour in slight sweating
Chest	Men < 95 cm	Men : 95-102cm	Men. 102cm

circumference	Women < 79	Women :79-84 cm	Women. 84 cm
Waist circumference	Men < 80 cm Women <75cm	Men:80-85cm Women: 75-80 cm	Men.85cm Women.80 cm
Skin	Dry	Normal skin texture	Extremely oily prone to acne
Hair	Dry	Normal skin texture	Extremely oily
Eyes	Gets dry very quickly	Normal	Feels heavy & sticky all the time

Method of Collection of Data and Analysis The case sheet proforma was prepared and who comes under the diagnostic criteria were collected based on consecutive sampling and pre and post test assessment were done based on symptom gradation and analysed by applying descriptive statistics. Among the 5 participants in the study, 3 were female and 2 was male. Two of the participants had mild regular exercise, 3 did not have the habit of regular exercise. 2 of the participants had mental strain of professional origin, 2 had physical strain and 1 had sedentary type of profession. The prakriti of 3 of them were predominantly kapha, 1 was predominantly vata prakriti, another 1 was kapha- vata prakriti.

Administration of Drug: The participants were prescribed lekhaneya gana kashaya as phanta⁸ preparation and they were advised to take the same for 21 days. Among the panchavidha kashaya, phanta kashaya kalpana was preferred since it was easy to prepare. The ten drugs for kashaya were collected from the local market. The drugs were identified by experts and examined for impurities. Proper shodhana

was done for Citraka, Katurohini and Ativisha. After shodhana the drugs were powdered. The dose of drug for single use was 15 g and the participants were instructed to put 15 g of drug into 60 ml of boiled water and to keep it for 5 minutes. After that they were asked to strain and take the medicine early morning before food. The participants were asked to continue their normal diet and regimen.

Observation and Result In this study: observation was done before and after the administration of lekhaneya gana phanta kashaya. Post administration assessments, which were performed after 21 days showed that there was reduction of most of the criteria. There was reduction in BMI, waist/ hip ratio, body fat percentage, after the administration of lekhaneya gana kashaya. The problems associated with sthoulya of 4 participants reduced after the intake of lekhaneya gana kashaya. The lakshanas of vitiation of medodhatu of 3 participants were also reduced. There was reduction in fatigue, in 4 participants. Moreover, the administration of lekhaneya gana kashaya did not cause any discomfort to the patients.

Table 3: Parameters before and after administration of lekhaneya gana.

S. No	Age	Sex	BMI		Waist / Hip		Body fat %		Sthouly problems		Medodhatu vitiation	
			B	A	B	A	B	A	B	A	B	A
1	37	F	26.8	26.1	0.83	0.80	27.7	27.5	1	1	18	16
2	28	F	27.4	26.8	0.84	0.82	30.2	30.1	7	3	20	19
3	41	F	28.8	28.2	0.86	0.81	29.9	29.5	5	1	24	22
4	32	M	29.9	29.3	0.87	0.85	38.4	38.2	7	3	27	25
5	47	M	29.4	28.8	0.89	0.87	29.6	29.4	9	4	22	20

DISCUSSION

Medovridhhi/ Sthoulya is a kapha-vata pradhana tridoshaja vyadhi. In this study the effect obtained by lekhaneya gana kashaya might be due to the predominant rasa of these drugs- katu, tikta and kashaya. Most of the drugs are having ushna veerya, which pacifies the aggravated kapha and medas. Lekhaneya gana not only acts on the symptomatology of medovridhhi but also checks its progression by hitting the basic pathology i.e. medovahasrotosanga and medosanchaya.

CONCLUSION

Medovridhhi, a kaphavataja tridoshaja vyadhi, could be effectively managed by lekhaneya gana phantakashaya. The problems associated with medovridhhi could also be controlled by the kashaya.

Thus it could be observed that the kashaya helped in controlling medovridhhi /overweight.

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