



ROLE OF AYURVEDA IN MEDOVAHASROTO VIKARA

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ABSTRACT:

Ayurveda, the science which deals with curative as well as preventive aspect of an individual. *Sarira*(body) is the assortment of *srotas*(channels) where these are micro channels which acts as internal transport system of *dosha*, *dhatu*, *mala*. One among them is *medo-vaha srotas*. The *Moolasthan*(origin) of *srotas* is anatomical seat of the respective *srotas* where the main seat of pathology of that channel and manifestation of diseases. There are mainly four kinds of abnormalities in the functioning of *srotas* called “*srotodusti*”. They are *Atipravrtti*, *sanga*, *siragranti*, *vimargagamana*, which may occur individually or in combination which leads to a disease. Due to intake of improper diet (*aahar-vihar*) leads to disturbance in *agni* (digestion – metabolism) that leads to distribution of adipose tissue (lipid form) in human body like subcutaneous tissue, omentum, kidney, liver etc. And this reconfirms the *moolasthana* of *medovaha srotas* (*vrikka*, *vapavahana*, *kati* etc.,) considered by charakacharya, sushrutacharya. Further the vitiation of this *srotas* will leads to risk factors such as obesity, diabetes, hypertension, CVD, etc. which are leading to the pandemic. Obesity can be defined as an excess deposition of adipose tissue which are derived from fatty food, oil, sedentary lifestyle, neuro-hormonal abnormality, stress etc., which further leads to complication such as diabetes a chronic metabolic disease characterized by elevated levels of blood glucose which leads over time to severe damage to the heart, blood vessels, eyes, kidneys, nerves etc., In present era it is very necessary to give importance to the lifestyle of individual to achieve the ayurvedic principle *swasthasya swasthya rakshanam* by following proper *dinacharya*, *rtucharya* etc., which has great prospective in prevention and controlling the disease and maintaining health of an individual.

Keywords: *srotas*, *medadhatu*, *medovaha srotas*, *srotodusti*.

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INTRODUCTION

Ayurveda the ancient science which deals with the curative as well as preventive aspect of an individual. The three basic blocks upon which the human body stands are *tridosha*, *saptadhatu* and *trimala*^[1] which plays an unique role in maintaining, supporting and nourishing the *shareera*. *Meda*(fat) *dhatu* the fourth *dhatu* which is the main root and clinically very important now a days because it plays a significance role in developing many metabolic disorders like *sthoullya*(obesity), *prameha*(diabetes), *hrudroga*(cardiovascular diseases) etc.,therefore it is necessary to have the normalcy of *dhatu*. The disturbance of *meda dhatu* and *medovaha srotas* is very common in present era because of increased sedentary lifestyle, junk food, improper routine etc.

About 80% of the food on the shelves of supermarket today did not exist 100 years ago – Larry Mc celery MD.

Meda dhatu

The word *meda* is derived from root “*jhimida snehane*” i.e. substance which is having the *snigdhatva* property like *sneha*,fat,oil etc.,(vachaspati). *Medyati snehayatti meda*-smoothens the body. It means *sneha*(fatty substance) of the body which serves as an energy reserve is known as adipose tissue. It is formed from the *mamsa*(muscle) *dhatu* by the

action of *mamsagni* along with *upadhatu*^[2]. Primarily it is more predominant of *jala* along with *prithvi* mahabhuta. The *Anjali pramana* for *meda* is 2-*anjali*^[3]. It is of two types *poshak* and *poshya medodhatu*. The *poshak medodhatu* which is mobile in nature circulates whole body along with *rasa* and *rakta*. The *poshya medadhatu* which is immobile and stored in *medodhara kala* i.e. *udar* and *anuasthi*. *Sphik,Udar,sthana,gala* are also depots of *poshya medadhatu*. It is also found in *mamsa* as *vasa*. Practically its known thing that main fat deposits are at subcutaneous tissue and in omentum. Which is a main *dushya* in most of the *santarpanajanya vyadhi* like *sthoullya,prameha,hrudroga* etc., the Functions *Asthi pushti, sneha, sweda, dradhtva, netra-gatra snigdhatva*.

Srotas and medovaha srotas

Acharya charak has quoted “*Sravanat srotamsi*” while chakrapani commenting on the same said that “*sravana*”(travels) means the *sravana* of *rasadi dhatu* that means the *srotas* are the hollow channel which originating from root space spread all over the body and carry the transformed *dhatu* as these serve as the conduct units for the *Prasad dhatu*s as well as *mala dhatu* are transported and formation of *sthayi dhatu* takes place there our Acharya described that the entire

range of life process in healthy as well diseased depends on the integrity of the *srotas*. Acharya's describe the different *srotas* one among them is *medovaha srotas*. The channels which nourish the *meda dhatu* can be considered as *medovaha srotas*. Dr. Ghanekar.B.G. considered the *medovaha srotas* as the capillaries of the perinephric tissue and omentum. The fat cells are held together mainly by the network of capillary blood vessels which are distributed to them and even these capillaries constitutes *medovaha srotas*. The *vrikka* the common *moolasthanam* where all acharyas considers and it can be functionally relate with fat metabolism. On account removal of adrenal glands leads to complication like *daurbalya*,

karshya, agnimandhya etc.,. *Vapavahan*^[4] and *katisthana*^[5] mainly store the excess fat in the body i.e. commonly occurs in abdomen. Acharya vagbhata has considered *mamsa* as second *moolasthanam*. The probable reason may be due to its physiological role of muscles especially the skeletal muscles are known to store fat (Intramuscular lipids). "*Moolamiti prabhavasthanam*" is explained by the commentator of charak samhita. Acharya chakrapani as "if root of the tree is destroyed it will cause harm to the whole tree ,likewise if harm is caused to *srotomoola* it will lead to damage to whole *srotas*. There are four kinds of abnormalities in the functioning of *srotas* called as *srotodusti*. They are *atipravrtti, sanga, siragranthi, vimarga-gamana*^[6].

Table no. 1 Medovaha sroto dusti karana in present era

Dietary cause	Lifestyle and behaviour	Mental cause	Endocrinal factors
Over eating	Sedentary lifestyle	Lack of thinking	Cushing syndrome
Frequent food intake ,before digestion of previous meal	Lack of physical exercise	Anxiety	Polycystic ovarian disorder
Kapha increasing food	Excessive sleep	Cheerful mind	Hypothyroidism
Excessive consumption of sweet, heavy, cold, unctuous food.	Day sleep	Depression	Pituitary adiposity
Dairy products-cheese butter ice-cream.	Sleeping soon after meal	Stress	Pregnancy
Excessive intake of oily, fried, grilled, fast food.	Lack of sexual life	Genetics: <i>beeja swabhavat</i>	After menopause

Drinking water after food intake.			
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Generally excess fat results from imbalance between the calorie intake and calorie output. Acharya charak has mentioned *atistoola* as one of the *astoinidita purusha* in 21th chapter. Acharya sushruta mentioned that he individual indulges in *sleshmakarahar* that results food uncooked and more sweet this

rasa dhatu circulates throughout body produces *meda* which leads to obesity resulting in symptoms like *kshudha*(hurgry), *swasa*(dyspnoea), *pipasa*(t hirst), *swapna*(sleep), *dourgandhya*(badsmell), *gatrasada*(tiredness) inturn leads to complication^[7].

Table no.2 Ashtonindita and Medoroga

Acharya sushruta	Acharya charak	Medoroga
Swedogaman	<i>Atideergha</i> (excessive tallness)	<i>Medagranthi</i>
Snigdhangata	<i>Atihrasva</i> (dwarfism)	<i>Antravridhi</i>
Talushosh	<i>Atiloma</i> (excessive hairs)	<i>Medovridhi</i>
Sthula	<i>Aloma</i> (lack of hairs)	<i>Galaganda</i>
Pipaasa	<i>Atikrishna</i> (dark colour)	<i>Arbuda</i>
	<i>Atigaur</i> (too fair)	<i>Prameha</i>
	<i>Atikrash</i> (starvated)	<i>Atisweda</i>
	<i>Atisthula</i> (overweight)	<i>Sthaulya</i>

Table no.3 Medo dhatu dushti lakshana

	Meda vridhi	Meda kshaya
Charak samhita	<i>Prameha poorvaroopa, ninditani</i>	<i>Sandhi sphotana, akshglani, ayasa, udara tanutvam.</i>
Sushruta samhita	<i>Snigdhangata, udara-parsva vridhi, kasa, svasa, dourgandyam</i>	<i>Pleehavridhi, sandhishunyata, roukshya, medura-mamsa prarthana</i>
Ashtanga sangraha	<i>Prameha poorvaroopa, sthoulyopadrava, sleshma mamsa rakta vikaras</i>	<i>Pleehavridhi, katisvapa, sandhishunyata, angaroukshya-karshya, srama etc.,.</i>

Ashtang	<i>Tadvat,alpa cheshtite</i>	<i>Katisvapa, pleehavidhi,krishangata.</i>
a	<i>sramam,swasa,sphik-stana-</i>	
hridaya	<i>udara lambanam</i>	

Here, we can consider *medoroga* as *sthoulya* and in modern point of view it is obesity which is the most leading disorder in day to day. Obesity is derived from the latin word-“*obesita’s*” which means “stout, fat, or plump”. Definition: Obesity and Overweight are defined as abnormal or excessive fat accumulation that presents a risk to health. A BMI over 25 is considered overweight and BMI over 30 is obese.

You don’t become obese overnight. Obesity is developed through long-term lack of physical activity, poor diet choices, environmental factors, mental stress, and in some cases genes.

–by Mirador health.

Energy balance- energy intake that exceeds energy expenditure is the main driver of weight gain. We need calories for functioning and the calories comes from food we take such as carbohydrates, protein, fat that gives us the energy we need to keep ourself going but the problem occurs when we eat more and spend less in that situation body stores the excess energy in other forms. So it also matters that what kind of food we eat whether healthy food or unhealthy food.

When we eat more calories we are able to burn less calories than we are at a state of calorific excess state, body can deal with these excess calories in 3-state:

1. Convert excess fuel to fat and store it in an adipose tissue.
2. Body can burn excess fuel by extra exercise.
3. Wastage of excess fuel via heat production.

Our body is evolutionary trained to store excess calories as fat in the form of adipose tissue because in earlier days there was not that much availability of food so whenever body has some amount of calories which is excess it will store it for future that work like a survival strategy but now a days we have plenty of food and we never go to a state where devoid of food calories. Excess calories along with sedentary lifestyle created a huge problems resulting in obesity. Lipostat hypothesis: describes the feedback mechanisms between adipose tissue deposition and hypothalamic signalling that sustain ‘lipostasis’^[8]. Lipostasis is achieved through the modulation and balancing of energy intake and expenditure to prevent an

individual 'getting fat'. For the brain to know when there is too much adipose tissue building up, a signalling hormone is released from the adipose tissue to signal to the brain that satiation signal must be released to stop individual from eating. Leptin the hormone released from the adipose tissue circulates in the blood in proportion to whole body adipose tissue mass it signals to transmit information about size of body fat depots; it plays an important role in regulating food intake.

Physical inactivity: physical activity burns up to 20% of your daily caloric intake, having a sedentary lifestyle may add up to a 360 calorie (women) to 400(men) calorie surplus per day.

Unhealthy diet: your diet controls 80% of your weight, consistently eating highly processed foods, refined sugar and grains, and unhealthy fats contributes to weight gain.

Complications:

Table no. 4: Correlations of complication in modern science

In Ayurveda	In modern
<i>Pramehaanaam purvarupani</i>	Plasma and blood: CARDIOVASCULARDISEASE, STROKE,MI....
<i>Kasasvasaadin</i>	Muscle: chronic musculoskeletal disorders.
<i>Kucchrabyabaayata</i>	Fat: diabetics mellitus, hyperlipidaemia
<i>Vatajanya roga</i>	Bone: Osteoarthritis, gout
<i>Bijasvabhava</i>	Reproductive: PCOD, infertility, Pregnancy complications.
<i>Daaurbalya</i>	Mind: depression.
<i>Sukumarata</i>	Socially: disability on low income ...etc.

DISCUSSION

Medas is one among and placed middle of the *saptadhatu*, which is formed from the essence of the *ahara rasa* and is a *matruja bhava*. The word *meda* is nothing but *snehana* ie. To oleate *sneha* is a quality which imparts *kleda* to the body. The *moolasthan* is *vapavahan*, *kati* and *mamsa*. By the action of

medodhatvagni in turn transforms its to *asthi* as essence. Hence, *medas* can be inferred as lipids and *dhatu* as adipose tissue. *Vrikka* is the common *moolasthan* which is one of the *koshtanga's* which are present both side of the vertebral column. It is taken as kidney with suprarenal gland which regulates the release of epinephrine and nor-epinephrine. However

the kidney will not filter the lipids (fat) instead they protect the fat which in turn limits in deposition of fat around the kidney that leads to increased body fat. *Vapavahan* as second *moola*. The word *vapa* is *meda*/fat and *vahan* which travels or moves. This makes to consider omentum the thin membrane packed with fat depot. These are again of two types lesser omentum and greater omentum. These are packed with adipocytes which covers small intestine and acts as a first line of defence against toxins and infections therefore it is called as policeman of the abdomen. *Kati* can be considered it as loin region where large amount of fat is deposited because of lack of exercise. *Mamsa* here we considered it with intramuscular fat which located inside the skeletal muscle fibres which serves as energy store. The function is assigned by both qualitatively and quantitatively in the equilibrium state. The purity of the *dhatu* is calculated through *sara pareeksha*. The person endowed with *meda sarata* has unctuousness in complexion, voice, eyes, hand, hair, skin, teeth, lips etc,. The disturbance in the formation and utilization of the *dhatu* leads to *medo-dhatu vridhhi* and *kshaya* in turn leads to complication.

The specific cause for the vitiation of *medodhatu* are sedentary lifestyle, junk food, excess oily food, excessive day sleep, sleeping

just after food leads to the production of *ama* that in turn restrict the *vata* and aggravates the *kapha* that leads to *lakshana's* of *medo vridhhi* and *kshaya* as excessive sweating, unctuousness, dryness of oral cavity, excess thirst. It may even leads to *granthi, vridhhi galaganda arbuda*, etc. The abnormal accumulation of adipose tissue in the abdominal viscera leads to disturbance in the metabolism contributes to metabolic syndrome like PCOS, HTN, Dyslipidaemia, hyperglycaemia, stroke and diabetes etc. this is influenced on HPA-axis and vice-versa. This metabolic syndrome may not be caused just only due to over eating, but may be due to lifestyle i.e, less utilization. As the modern lifestyle made human being more comfortable starting from waking up till going to bed. The basic concept of utilization of energy should be done through practicing physical exercise, avoiding the unnecessary use of modern equipment's .Our acharyas have mentioned that walking without rest for a distance of hundred *yojana*, is one of the best *chikitsa* for *sthula pramehi*.

CONCLUSION

Meda dhatu is one among the *sapta dhatu*. The fat get accumulated near the kidney and suprarenal gland by this we can conclude that the *moolasthan* of *medadhatu* is *vrikka*. If any disturbance in the function of

kidney leads to pandemic such as hypertension, CVD, dyslipidaemia, stroke diabetes etc.. Obesity is not a disease, it is a public health problem and it is a risk factor for several chronic disease. It has reached epidemic proportions and is now affecting younger age groups. The increased consumption of calorie dense fast food and sucrose enriched drinks, together with an increasingly sedentary lifestyle, appear to be major factors contributing to this epidemic. Understanding the role of environmental factors an development of obesity help in control and prevention. Say bye bye to *amaroga, hrudroga prameha, arsha*, etc. By following AYURVEDA Healthy eating combined with increased physical activity is the answer.

Key Message: Knock of your extra pounds in a healthy way.. return home as a slimmer and healthier person enjoy the beautiful journey of the life.

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