

**SIGNIFICANCE OF MEDA DHATU IN METABOLIC DISEASES****Kuldeep Singh Chauhan***

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ABSTRACT

Our modern science says human body formed with cells and group of cells forms tissue there leads to organ. According to Ayurveda our body (*Sharir*) and Mind (*Manas*) and *Prana* (life force) are supported by tissues known as *Dhatu*. Ayurveda identifies seven *dhatu* or tissues with in human body *Rasa Dhatu* (Plasma) *Rakta Dhatu* (Blood), *Mamsa Dhatu* (Muscle). *Meda Dhatu* (Fatty tissue), *Asthi Dhatu* (Bone), *Majja Dhatu* (Nerve tissue) and *Shukra Dhatu* (Male Reproductive tissue) *Meda Dhatu* is responsible for storing energy, providing Nourishment, lubrication etc.

INTRODUCITON

Meda Dhatu is the 4th *Dhatu* among 7th *Dhatu*s in our human body.

Meda Dhatu gets nourished by *Mamsa Dhatu*. Its main function is *Senehana* – lubrication. Its increase and decrease is influenced by *Kapha Dosha*, *Meda Dhatu* (Fat tissue/Adipose tissue) is present.

- Subcutaneous layer deep to skin
- Around the renal way (kidney)
- Around the Heart
- Marrow of long bones
- Inside the eye – socket
- Padding around the Joints

Adipose tissue is also a means of energy storage. Food that is excess to requirements is converted into fat and stored with adipose tissue in the body. Fat tissue acts as an insulating layer helping to reduce heat loss through skin. It also has a protective function providing

mechanical protection and support around some of the major organ eg. Kidneys. “*Medah Snehaswedou Pustimastnanncha Karoti*” (Function of meda dhatu)

Role of Dhatu (Meda Dhatu) in Manifestation of Diseases:-*Meda dhatu* plays important role in metabolic diseases.

When *meda dhatu* decreases – A decrease in *Meda Dhatu* decreases body weight when it is decreased than the normal limit it causes crackling of joints, tiredness and fatigue, loss of glow in eyes, tiered eyes, thinning of the abdomen, Hypoglycemia.

When *meda dhatu* increases – Increased *Meda Dhatu* increase body weight. It leads to fatigue or tiredness. Even a slight exertion like walking or climbing stairs lead to dyspnea or gasping for breath (Panting) due to Hyperlipidemia. Increased *Meda Dhatu* deposited in different parts of the body like buttocks, thighs, breasts, abdomen and Arms. Body parts become enlarged and pendulous. This condition is known as ‘*Sthoulya*’ or “Obesity” in Ayurveda.

- An imbalance in this *Dhatu* reduces lifespan. According to research, obesity leads to “Diabetes”, Heart attack/Cardiac Arrest and Hypertension.
- Increased Lipid levels or cholesterol in blood known Hyperlipidemia or dyslipidemia.
- Obesity or *Sthoulya* reduces body immunity
- *Madhumeha* or Diabetes also leads to increased thirst and appetite.
- *Atisthaulya* or imbalances in *Meda Dhatu* prevents nourishment of next *Dhatu*s like *Majja/Asthi/Shukra* etc. This leads to osteoporosis, weak joint and obesity – related erectile dysfunction infertility in men and PCOS / PCOD in female.

Systemic malfunction or diseases due to imbalance of *meda dhatu*

- (a) **Cardiovascular system:** Hyperlipidemia, dyslipidemia (High Cholesterol / High triglycerides) Heart / Cardiac arrest Palpitation, Sweating Angina, Myocardial infarction.
- (b) **Endocrine system:** Diabetes (Type-I) & Type-II) Hyperglycemia or Hypoglycemia, Diabetic Ketoacidosis, Diabetic Retinopathy, Diabetic Neuropathy.
- (c) **Urinary system:** Hyper urination (Frequency of urine increase) Nocturnal urination, Burning micturition, Pyuria.
- (d) **Reproductive system:** Impotency, Loss of Libido, Erectile dysfunction, Infertility, Premature Ejaculation, Low sperm count.

(e) **G.I. system:** Indigestion, Constipation, Gastritis, I.B.S. (Irritable bowel syndrome), Excessive hunger, Excessive Thirst, Sweating, fullness of stomach, belly fat deposition, etc.

Causes of imbalance of *meda dhatu*

- Sedentary work like sitting for a long time and lack of physical activity or mobility.
- Increased stress also causes increase adipose tissue or body fat sleeping for very long hours or sleeping in day Hours leads *Sthoulya* or obesity.
- Taking High carbohydrate diet or oily & junk foods
- Sex inactiveness or not having sex regularly can lead to increase body fat, overeating of high calorie food like sweets, oil or fat processed foods fast food etc. through *Kapha* off balance and lead to an increase in *Meda Dhatu*.

Importance of *meda dhatu* in field of treatment (*Chikitsa*)

Vikrut Meda Dhatu can classified in two ways (i) *Meda Dhatu Kshaya* (↓↓) (Depletion of fat tissue) (2) *Medo Dhatu Vriddhi* (↑↑) (increase of fat tissue)

(a) *Medo Dhatu Kshaya* conditions can be caused by sudden severe loss of *Dhatu* due to blood loss by any type of trauma / Emotional trauma, anorexia, *Agni Mandya* due to chronic illness, IBS, obstructing the path of *Medovaha Stroats*, thus blocking the nutrition found to *Meda Dhatu*. Due to abnormal *Medo Dhatu Agni* – The protective functions of fat tissue is low. The cells and related tissue dried up and nerves loss their insulation. The nerve conduction and other vital functions fail. It leads to many neurological and metabolic disorders. Sometime *Vishmagni* or *Teekshnagni* hampered the nutrition and functions of *Meda Dhatu*.

(b) *Medodhatu Vaidhhi* (↑↑): – When *Medo Dhatu Agni* becomes impaired in the form of its qualitative and quantitative depletion if fails to metabolize and convert the nutrients coming to it. Fat starts accumulating in the body. This unwanted fat collect every there in the body like belly, buttocks, arms, thigh, face etc.

Free fat which circulate fats of pathophysiological conditions like Hypercholesterolemia (dyslipidemia), hypertension, Diabetes Mellitus, Heart diseases, obesity, Hypothyroidism, Hyperthyroidism and many more *Medo Rogas* occurs due to disturbances in fat metabolism *Medo ragas* covers all the serious complications and systemic disorders covering multiple organ damage like heart, kidney, brain etc. strokes (Brain/Heart) are very common in this.

Herbs & Rasa (metals) which is useful for *Medo Rogas* (Metabolic disorder)

- *Guduchi, Triphala (Amlaki, Vibhitaki, Haritiki)*
- *Trikatu (Sunthi, Marich, Pippali), Vidanga*
- *Kanchnar, Ginger, Bartey, Gooseberry*
- *Musta*
- *Honey, Lauha, Kshara, Guggul*
- *Shilajatu, Bilwa, Abbrak*

These Herbs and Rasa (Metals) and their by preparations (*yog*) are very useful for *Medo Rogas* and fat related diseases.

In *Shodhan Chikitsa (Panchkarma) Snehana, Abhyang, Swedan & Basti (Anuvasan & Aasthapan both), Virechan* are leading *Shodhan Chikitsa* for *Medo Rogas / Metabolic* diseases.

Langhan & Vyayam (Physical Exercise) are key factors of treatment of any metabolic disorders.

CONCLUSION

Acharya Charak described in which book *Charak Samhita*- kidney & omentum/Peritoneum or roots of fat carrying channels but *Acharya Sushruta* mentioned pelvis instead of omentum. Ayurveda Wisdom was rich enough to understand that the peals of maximum accumulation / dept. of fat, when the body has more fat the body looks oilier, obesity and swelling of the body is also due to accumulate of fat and its pressure on the tissue and organs.

Madhumeha (Diabetes) is the worse condition of Imbalance of fat in Modern medicine has proved the bad impact of increased fat and obesity of different endocrine systems.

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