

**CONCEPTUAL STUDY OF MEDO DHATU IN KAPHA BAHULYA PRAKRITI W.S.R.
TO LIPID PROFILE****Dr. Bhag Singh Kushwah*¹, Prof. (Dr.) Anju Sharma², Dr. P. C. Sharma³ and Dr. Rajeev Mishra³**¹Ayurveda Medical Officer, Ayush Wing Morar, Dist. Gwalior (M.P.).²PhD, Professor, Dept. of Kriya Sharir, Pt. Khushilal Sharma Govt. Auto. College and Hospital Bhopal.³Ayurveda Specialist, Directorate of Ayush, Bhopal, Asst. Professor, Dept. of Kriya Sharir, Pt. Khushilal Sharma Govt. Auto. College and Hospital Bhopal.***Corresponding Author: Dr. Bhag Singh Kushwah**

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ABSTRACT

Ayurveda is one of the most ancient medical science of the world which conceives and describe the basic and applied aspects of life processes. Among the seven Dhatus, Meda is an important Dhatu, which stands on 4th number. Medo Dhatu formed from Mamsa Dhatu through action of Medo Agni on Posakansh of Medo Dhatu, having properties of Snehatva and Sthiratva because of the Jala and Prathvi Mahabhuta. Lipids are groups of organic substances of fatty nature, insoluble in water but soluble in fat solvents, which are utilized during metabolism by living organisms. Lipid disorders or Dyslipidemia are the most common metabolic disorder has been in clinical practice and identified as a potential risk factor for cardiovascular diseases and involves abnormally elevated levels of any or all lipids in the blood. Prakriti is one of the most important concepts of Ayurveda and it is decided at the time of conception. Prakriti can be defined as body constitution. Prakriti is first fold examination among ten folds of examination as mentioned in Charaka Viman Sthan by Acharya Charaka. Dhatusarata is qualitative, quantitative and functional assessment of Dhatus is called as Dhatu Sarata or tissue excellence. Physical as well as mental strength can be assessed by examining Sarata of every Dhatu. Purest form (Vishuddhatara) of Dhatu is called as Sara Dhatu. Dhatu Sarata represents tissue excellence; Meda Dhatu Sarata contributes the excellence of adipose tissue and lipids.

KEYWORDS: Medo Dhatu, Lipid Profile, Kapha Prakriti, Dhatu Sarta.**INTRODUCTION**

Ayurveda is one of the most ancient medical science of the world which conceives and describe the basic and applied aspects of life processes. According to Ayurveda life is based on tripods i.e. Dosha, Dhatu and Mala, which are anatomical as well as physiological state of body. In our body, there are many tissues, which are rich in lipids viz. Medo dhatu, Vasa and Majjadhatu and have Snehatwa as common feature but all are differ in their site and function. Meda is present mainly in Udara, but some of it is also present Mamsa and Asthi. The Meda present inside small (Anu) Asthi is called Sarakta Meda and when it is present in large (Sthula) Asthi, the same is called Majja. The pure form of Meda present in Mamsa (Peshi) is called Vasa. Thus all forms of lipid in body are present in Meda, Vasa and Majja. Medo Dhatu is present in the body in 2 forms viz. Poshaka (Mobile in nature) Medo Dhatu and Poshya (Immobile in nature). Medoroga is very common life style related disorder. In the modern civilization era incidence of Medoroga is increase day by day. It is bane of electronic era in which due to lake of physical activity, Stress full life, increase

intake of fast food, change in dietary habits result in the form of increasing body fat day by day. Obesity, which is result of Medoroga, has alarming proportions among Indians in the present era and female suffer more than men. Various Ayurvedic researchers were made attempts to clinically co-relate it with RasarakgatasnehaVridhhi, Medoroga, Sthaulya etc. Excess use of Snigdha, Guru, Picchila Aahar along with Chesta Dvesha (lake of physical activities) lead to Santarpanajanya Vyadhi.

Mandagni is considered as a main etiological factor for Medo Dushti in which due to Mandagni formation of Amaanna Rasa (improper formation of chime) and result into excess formation of Meda (lipid) which goes in to circulation, this condition is correlated with dyslipidemia, which is an excess circulation of lipid in blood.

Lipids are groups of organic substances of fatty nature, insoluble in water but soluble in fat solvents, which are utilized during metabolism by living organisms. Lipid disorders or Dyslipidemia are the most common

metabolic disorder has been in clinical practice and identified as a potential risk factor for cardiovascular diseases and involves abnormally elevated levels of any or all lipids in the blood. Dyslipidemia is a condition in which the levels of lipoprotein i.e. Cholesterol, Triglycerides or both are raised in plasma and Cholesterol is deposited in the arteries including the coronary arteries where it contributes to the narrowing and blockage of the arteries that cause the symptoms of heart disease. It is emerging as major health problem in the modern era. Dyslipidemia lead to coronary artery disease, myocardial infarction etc. According to Modern science, it can be correlated with cholesterol and lipids, which are present in circulating blood & adipose tissues / fat.

AIMS AND OBJECTIVES

This study was planned with following aims and objectives:

1. To review ancient literature available on Kapha Bahulya Prakriti and Medo Dhatu in Ayurvedic text.
2. To examine the relation between Medo Dhatu with Lipids in Kapha Bahulya Prakriti.

Concept of prakriti

Derivation

Prakriti -Pra + Kr + Ktich (upadane karne)

The word Prakriti is formed by 'Pra' upsarga and 'ktich' pratyaya from dukrinyn Dhatu.

Etymology

Prakriti is denoted by Feminine gender, through which Karya is done. Prakriti is said to be Samyavastha of Satvadiguna and Femine gender and it is also said as Yoni / linga. Dhatusamya is said to be Prakriti. But in this reference word Prakriti means health as said by Acharya Chakrapani. Acharya Susruta said that Prakriti is root cause for origin of universe and represent by word Avyakta.

Synonyms of Prakriti

The terms Samsidhi, Prakriti, Swarupa, Swabhava and Nisarga are mentioned as synonyms of Prakriti in Amarkosha.

In Mahabharata the synonyms given are Tamo, Avyakta, Shiva, Dhama, Raj, Yoni, Sanatana, Prakriti, Vikara, Pralaya, Pradhan, Prabhava, Avyaya, Anudrika, Akampa, Achala, Dhruva, Sat, Avyakta and Trigunatmaka. Pradhanam, Prakriti, Sakti, Nitya, Avikrti.

Definition of Prakriti

Prakriti is defined as the group of characters inherited by an individual from the Shukra and Sonita of the parents depends upon the predominance of Doshas at the time of conception. The predominance of Dosha present at the time of union of Shukra and Sonita form the Prakriti of an individual. A state of equilibrium of Dhatus which denotes a state of mental and physical well being is said to be Prakriti.

Prakriti has also been told as one of the Hetus in the formation of universe and is denoted by word Avyakta.

Formation of Prakriti

The predominance of Dosha present at the time of union of Sukra and Sonita form the Prakriti of an individual.

Acharya Charaka has mentioned that some factors influence the formation of Prakriti during intra-uterine life, which effect the predominance of Dosha or Doshas required for formation of Prakriti in Garbhasya (Uterus) at the time of union of Shukra and Sonita. These are –

- I. Shukra Prakriti (Nature of sperm)
- II. Shonita Prakriti (Nature of sperm)
- III. Kala Prakriti (Nature of time)
- IV. Garbhasya Prakriti (Nature of Uterus)
- V. Matur Ahar Vihar Prakriti (Nature of food and behavior of mother)
- VI. Mahabhuta Vikar Prakriti (Nature of the products of Mahabhuta)

Concept of Medo Dhatu

Etymology

The word Meda is derived from the root "Jhimida snehane" which stand for Sneha, Fat, Oil etc.

Defination

Dhatu which lubricates the body is called as Medo Dhatu.

Paryaya (Synonyms)

Mamsaja and Mamsateja- Meda Dhatu is formed from Mamsa Dhatu by Mamsagnipaka.

Asthikruta - Formation of Asthi is done from Meda Dhatu; so it is known as Asthikruta.

Vasa and Vapa - The fatty substances which locates in Mamsa Dhatu is called as Vasa and when its depot in abdomen, it is termed as Vapa.

Goda- Mashtishkagata Sneha is known as Goda and Mastulunga.

Formation of Medo Dhatu

According to Charaka, the Meda Dhatu is produce from Mamsa Dhatu, as when it is further cooked (metabolized) with its own heat and being predominated by its Mamsa Dhatu own heat and unctuous properties are converted into Medas. (Cha.Chi.15/35).

Kala

Parashar opines that food becomes Rasa on next day, Rakta on third day, Mamsa on fourth day, Meda on fifth day, Asthi on sixth day, Majja on seventh day and Shukra on eight days.

Types of Medo Dhatu

There are 2 types of Medo Dhatu

1. Poshaka Medo Dhatu
2. Poshya Medo Dhatu

Poshak Medo Dhatu is Gatiyukta (mobile in nature), which is circulated in the whole body along with Rasa, Rakta Dhatu, to give the nourishment to Poshya Medo Dhatu. According to modern science, it can be correlated with cholesterol and lipids, fats, which are present in circulating blood.

Poshya Medo Dhatu is Gativivarjita (Immobile in nature), which is stored in Medodhara Kala in its sites. i.e. Udara, Sphika, Stana, Gala etc. and Vasa (Mamsagatasneha). According to Modern science, it can be correlated with Adipose tissues.

LIPIDS

Lipids may be defined as organic substances insoluble in water but soluble in organic solvents like chloroform, ether and benzene. These are esters of fatty acids with alcohol esters and are utilizable by the living organism.

Classification Of Lipids

1. Simple Lipid

Esters of fatty acids with alcohols

- I. Natural Fats- Triglycerides, Esters of various fatty acids with glycerol.
- II. Waxes- Cholesterol & its esters.

2. Compound lipids

Esters of fatty acids with alcohols & containing other group in adulation to alcohols and acids

1. Phospholipids- Ester contains Phosphoric acid and nitrogenous base.
2. Glycolipids – Ester contains a carbohydrate and a Nitrogenous base.
3. Sulpholipids- Ester contains sulphuric acid.
4. Lipoprotein- Lipid attached Phosphoric acid and nitrogenous base.
5. Derived Lipids: Derivatives obtained by the hydrolysis of simple lipids & compound lipids. Like Vitamin A, D, E, K.

Table 01: Characters of Kapha Prakriti Individuals in Brahtrayayi.

S. NO.	Charaka samhita	Sushruta samhita	Astanga samgraha	Astanga hrdaya
1	Snigdha Anga	Durva Sadrisha	Durva Sadrisha	Gudha Sandhi
2	Shlakshna Anga	Indivara Sadrisha	Indivara Sadrisha	Snigdha Sandhi
3	Dhrishti sukha Gatra	Nisrimsha Sadrisha	Sharkanda Sadrisha	Shlishta Sandhi
4	Sukumara Gatra	Ardrarista Sadrisha	Samsuvibhakta	Gudha Asthi
5	AvadataGatra	Shara kanda Sadrisha	Sukumaara	Snigdha Asthi
6	Prabhuta Shukra	Subhaga	Shlishta Mansa	Shlishta Asthi
7	Prabhuta vyavaya	Priya Darshana	Shlishta Sandhi	Gudha Mansa
8	Prabhuta Apatya	Madhura Priya	Shlishta Bandha	Snigdha Mansa
9	Sara Sharira	Kritagnyata	Maha Lalata	Shlishta Mansa
10	Samhata Sharira	Dhrutiman	Maha Uru	Alpa Bhojana

Table 02: Characters of Kapha Prakriti Individuals in Laghutrayayi.

S. NO.	Bhel samhita	Harita samhita	Bhav prakash	Sharangdhar samhita
1	Susnigdha Anga	Susnigdha Varna	Shyama Kesha	Gambhira buddhi
2	Shlakshna Anga	Sita Netra	Kshami	Sthula Anga
3	Subhaga	Trapta	Sthula	Snigdha Kesh
4	Priya Darshana	Shyama	Bahu Veeryo	Maha Bala
5	Drina Smriti	Sukesha	Maha Bala	Swapne Jalashayaloki
6	Chira Grahi	Nakh Deergh Roma	Swapne Jalashayaloki	
7	Bhaktiparayana	Gambhira Shabda		
8	Mashoshnapriya	Shruta Shastra		
9	Katu Priya	Nidra		
10	Yoshida Priya	Tandra		

Table 03: Characters of Kaphaja Prakriti According to Avayava.

Characters of Kaphaja Prakriti According Toavayava	
Deha	Sukumara, Avadatagatra, Sthula
	Subhaga, Priyadarshana, Mahabala
Kesha	Sthira, Kutila, neela, Snigdha
Varna	Durba, Indibar, Sharkand
	Priyangu, Shastra, Goroohana,
Loma	Bahulaya

Nakha	Deergh
Netra	Shuklaksha, Raktanta Netra,
Lalata	Mahalalata
Sandhi	Gudh-Snigdhd-Shlishta
Pani	Deergh, Vishal
Pada	Deergh, Vishal
Varna	Gaur, Sharkanda, Gaurochan, Kamal, Snighdh, Priyangaphala, Sweta durva, Suvarna

MATERIAL AND METHOD

Subjects were having Kaphabahulya Prakriti were randomly selected (Total 100 subjects) for the study from O.P.D. and I.P.D. of Pt. Khushilal Sharma Government Ayurveda College and Institute, Bhopal. A clinical evaluation of subjects was done by collecting information obtained by history, physical examination, investigation analysis in special designed proforma for the study. All investigations were carried out in the central laboratory of this institute. The consent of the subjects for the participation in the research was taken in the prescribe consent form as designed by Institutional Ethics Committee.

Inclusion Criteria

Subjects of either sex between the age group of 20-70 years.

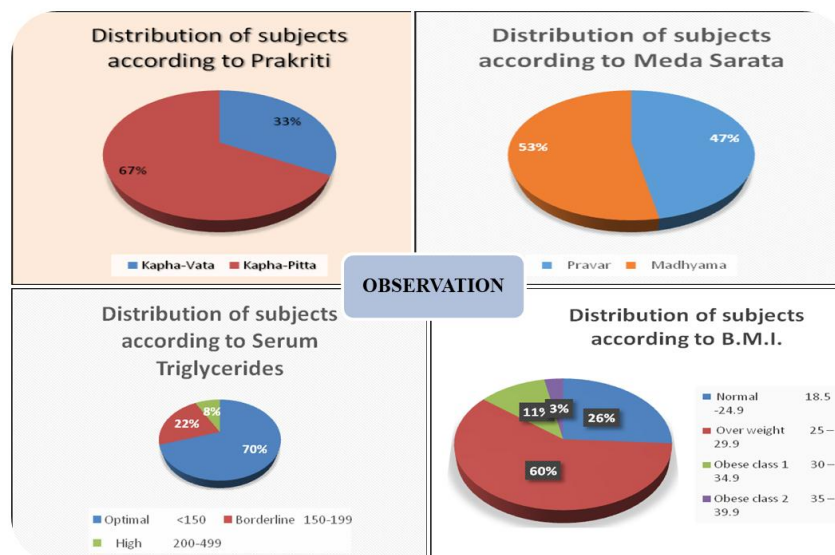
Exclusion Criteria

- Subjects not fulfilling the inclusion criteria.
- Subjects below age 20 year and above 70 years.

- Subjects suffering from Diabetes mellitus, Tuberculosis and any other chronic disease etc.
- Pregnant women and lactating mother.

Criteria for Assessment

- The Prakriti Parikshan of Subjects were assessed by special designed proforma in all types of Doshas Prakriti subjects.
- Meda Dhatu Sarata observed by special designed proforma. Meda Dhatu Sarata presented by Pravar (9 to 12 characters), Madhyam (6 to 8 characters) and Avar (1to5characters).
- Waist hip ratio (WHR).
- Body mass index (B.M.I).
- Lipid profile test
- Visceral adiposity index (V.A.I)



RESULTS

Correlation between Meda Sarata and Triglycerides

Showing correlation between Meda Sara and triglycerides in male Subjects. Correlation coefficient (r) = 0.4958, The p value was < 0.0001, considered extremely significant.

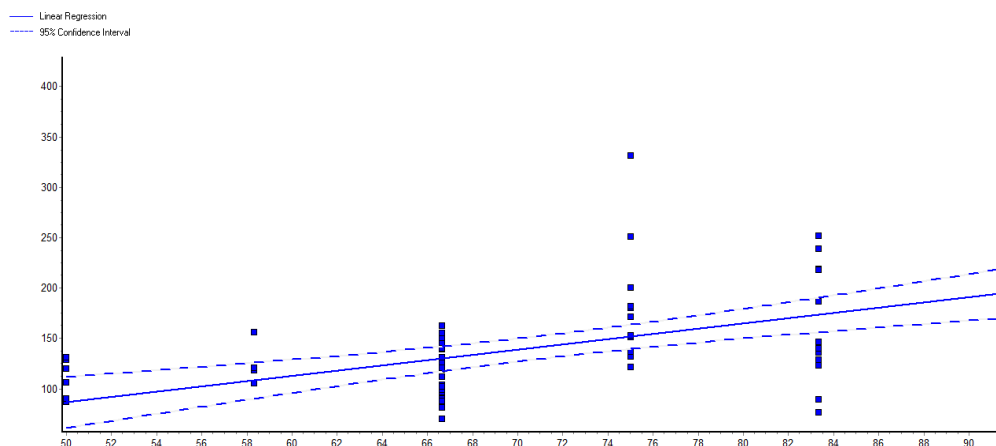


Chart No. 1: Correlation between Meda Sarata and Triglycerides

Correlation between Meda Sarata and Triglycerides
Showing correlation between Meda Sara and triglycerides in female subjects Correlation coefficient

(r) = 0.5071, The p value was <0.0097 , considered very significant.

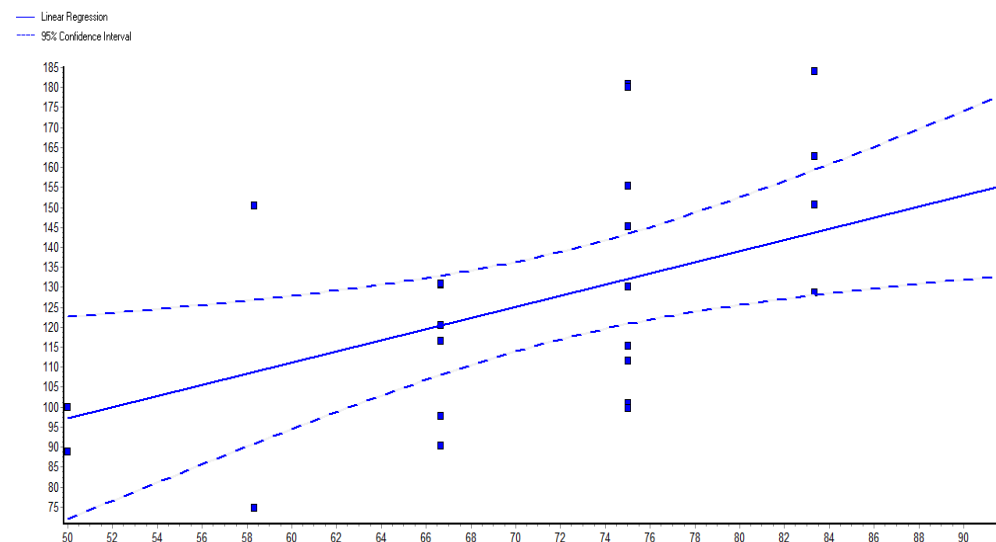


Chart No. 2: Correlation between Meda Sarata and Triglycerides.

DISCUSSION

The incidence of Medo Roga is a life style disorder. It is increasing day by day in modern civilization era due to lack of physical activity, excess intake of fast food and change in life style result in the form of increasing body fat. Dyslipidemia or lipid disorder are the most common metabolic disorder in which abnormally elevated level of any or all lipids in the blood occurs as seen in clinical practice. In Ayurveda it is considered that Mandagni is chief etiological factor for Aama Anna Rasa (improper formation of chyme) and result into excess formation of Meda (lipid) which goes into circulation. This particular stage of Meda can be correlated with Dyslipidemia where it is defined as excess circulation of lipids in blood. Keeping in the view of above the present study in titled conceptual study of Medo Dhatu in Kaphabahulya Prakriti with special reference to Lipid profile was planned.

CONCLUSSION

Due to deteriorating quality of our eating habits and food stuff, lack of regular exercise people are suffering from Obesity, Hypertension, Cardio vascular diseases etc. In premature age like, thirty years people suffers from Obesity. To prevent these diseases, it will be better if the person knows well in advance about the quantities of his Adipose tissue. Medasara examination can be definitely helpful to the person about the knowledge of quality his Adipose tissue. This can be helpful in the prevention and cure of various life style disorders.

On the basis of above observation, the concluding remark on this study is normal lipid Profile has been shifted towards abnormal lipid profile along with decreases Medadhatu Sarata percentage in Kaphapradhan Prakriti by increasing age.

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