



EFFECT OF SNEHAPANA ON ITS PHYSIOLOGICAL SIDE

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ABSTRACT

Snehapana is a unique procedure in ayurveda where it has been described by *Acharya Charka* for the *Shodhana* procedure, i.e for bringing back the vitiated doshas to koshta which is being scattered and which is excessive in our body. By doing this procedure one will attain all the effects of the procedure but in modern science doing this procedure they think its harmful for the body as the body reflects on lipid metabolism. So this article will guide about the *Snehapana Lakshana* and its action in our body in physiological way.

KEYWORDS: Snehapana, Samyak Lakshana and Lipid Metablolism.

INTRODUCTION

In ayurveda there are many unique procedures which are dealt in this science, one such procedure is *Snehapana*. The liquid medium fat is being advised to consume in way that it gives some changes to the body. The observed changes are considered as the sign for the next treatment plan, there are 4 types of *sneha* which is said in *samhitas*, *sarpi*, *Majja*, *vasa* and *taila*. In which *sarpi* or the *ghee* is best among the *sneha Dravyas* mentioned for the *Snehapana*. Where the oil (*taila*) is heavier than the *ghee* (*gritha*) to get digested and muscle fat (*vasa*) is much heavier than the oil and marrow (*Majja*) is much heavier than the above.^[1]

It Is Madhura Rasa and *Madhura Vipaka* and *It Is Sheeta Virya*. Cow's *ghee* is considered as the best and sheep's *ghee* is considered as the worst.^[2]

Girth is divided based on condition and time of store age

- *Ksheergrith*:- Prepared By Heating Cream Which Is Extracted Directly From Milk
- *Haiyangveen*:- Cream Extracted Directly From Milk Is Called *Haiyangveen*
- *Sadhyogrith*:- *Ghee* Which Is Obtained By Heating Butter.
- *Grith*:-The Same *Sadhyogrith* When Solidify It Is Called *Girth*
- *Ajya*:- *Girth* When melted by mild heating
- *Ghrithmanda*:- the upper layer of *grith* which remains in a melted state for years
- *Jeerna Purna grith*:- 10 year old *grith*
- *Kumbha grith*:-100 year old *grith*
- *Maha grith*:-111year old *grith*

Stored *Grith* becomes progressively solidified because its water content goes on decreasing. *Maha gritha* becomes hard like a stone, it has to be boiled in water and then used, it increase strength and intellect. It is considered as austere and relives *Bhootabadha*.^[3]

Gritha guna^[4,5,6]

1. *Drava*= *Jala*
2. *Sukshma*=*Agni*+*Vayu*+*Akash*
3. *Sara*=*Jala*
4. *Snigdha*= *Jala Prithvi*
5. *Picchila*=*Jala*
6. *Guru*=*Prithvi*+ *Jala*
7. *Sita*=*Jala*+ *Vayu*
8. *Manda*=*Prithvi*+*Jala*
9. *Mrdu*=*Jala*+*Akasha*

Gritha or *Sneha* can be administered both internally and externally. *Accha Sneha* and *Vicarna Sneha* for *Sodhana* purpose.

Accha Sneha

According to *Amarakosha*, *Accha Means* clear that is not solid in nature. *Accha* means *Kevla Sneha*, according to *Dalhana*, *Vrandhmadva* and *Vangasena* it can be *Pakva Na Apakva*. It is given without mixing with any food material. It is given in large quantity. It is given through oral route only *Acchapana* again can be used for *Samana* or *Samsodhana*. *Accha* can be used for *Samana* purpose also without mixing with it with food material.

According to *Cakradatta*, *Acchapana* can be *Sobanam* means single intake is also good. It means large quantity of *sneha* without mixing with any other articles.

Regarding the intake of sneha *Accha Sneha* is the among best *Snehana* therapy.

Dalhana Opines That Kevala Sneha is the synonym of *Accha Sneha* which means administration of processed or unprocessed sneha done not mixed with other liquids or medium. The following are the criteria have to follow for *Accha Sneha*, The quantity of sneha should be considered more than that of *Vicarna Sneha*.

Oral administration of pure sneha not mixed with mixtures; however suitable anupana said by classics can be used.

Vicarna Sneha

It is the method of using sneha with various preparations like *Odana*, *Vilepi*, *Yavgu*, etc. it is prescribed to those who are aversion for taking sneha substances, who are in the habit of *Madhyapana*, those who are having *Mrdu Kosta*, those who are resistant to physical strain. *Acharya Susruta* further added as this should be prescribed in the condition of *Thrishna* and *Usna* kala.^[7]

Samyak snigdha Lakshana

- Downward movement of vata.
- Increase digestive activity
- Feces becomes fatty
- Exhaustion

These are signs observed during when the *Snehana* is done properly.^[8]

Acchana panamatra

In *snehanapana* the quantity of sneha administered is determined based on the type of *agni* and *koshta* the individual has. So it is always best to observe the these before starting the *Snehanapana*, where the dosage of sneha increases latterly by 2yama, 4yama and eight yama which is considered mild and the dose increases by medium and high. It is always best to start with the minimal dose for sneha.^[9]

When to administer sneha:- For *Shodhana* purpose it is advised that consuming plain fat medium is suitable which should be after complete digestion of food and it should be large dose how the person digestion capacity is.

For *Samana* purpose it is advised during when the person is hungry and in fasting and the followed dose should be of medium.

For *Brhama* it should be mixed with meat soup or wine etc, and should be consumed with food with minimal dosage.^[10]

As we observe the *Lakshana's*, once the procedure is started and the dosage is administered, the physiology of ghee or the fat in ghee is started.

Lipid metabolism

Fat or lipids are mostly consumed in the form of **neutral fats**, which are also known as **triglycerides**. Triglycerides are made up of glycerol nucleus and free fatty acids. Triglycerides form the major constituent in foods of animal origin and much less in foods of plant origin. Apart from triglycerides, usual diet also contains small quantities of **cholesterol** and **cholesterol esters**.

Dietary fats are classified into two types:

1. Saturated fats
2. Unsaturated fats.

SATURATED FATS

Saturated fats are the fats which contain triglycerides formed from only saturated fatty acids. The fatty acids having maximum amount of hydrogen ions without any double bonds between carbon atoms are called saturated fatty acids.

UNSATURATED FATS

Fats containing unsaturated fatty acids are known as unsaturated fats. Unsaturated fatty acids are fatty acids formed by dehydrogenation of saturated fatty acids.

Unsaturated fats are classified into three types:

1. Monounsaturated fats
2. Polyunsaturated fats
3. Transfats.

1. Monounsaturated Fats

Unsaturated fats which contain one double bond between the carbon atoms are called monounsaturated fats.

2. Polyunsaturated Fats

Unsaturated fats with more than one double bond between the carbon atoms are called polyunsaturated fats. Polyunsaturated fats belong to the family of essential fatty acids (fatty acids required in diet). Polyunsaturated fats are of two types:

1. Omega-3 fats or omega 3

Fatty acids having double bond in the third space from the end of the carbon chain.

2. Omega-6 fats or omega 6

Fatty acids having double bond in the sixth space from the end of the carbon Chain. Both omega-3 and omega-6 fatty acids are beneficial to the body. However, consuming too much of omega 6.

3. Trans fats

Trans fats or Trans fatty acids are unsaturated fatty acids, With molecules containing trans (across or opposite Side) double bonds between carbon atoms.

➤ DIGESTION OF LIPIDS

Lipids are digested by lipolytic enzymes.

➤ IN THE MOUTH

Saliva contains **lingual lipase**. This enzyme is secreted by lingual glands of mouth and swallowed along with

saliva. So, the lipid digestion does not commence in the mouth.

➤ IN THE STOMACH

Gastric lipase or tributyrase is the lipolytic enzyme present in gastric juice.

➤ IN THE INTESTINE

Almost all the lipids are digested in the small intestine because of the availability of bile salts, pancreatic lipolytic enzymes and intestinal lipase.

Role of Bile Salts

Bile salts play an important role in the digestion of lipids. Lipolytic Enzymes in Pancreatic Juice. Pancreatic lipase is the most important enzyme for the digestion of fats. Other lipolytic enzymes of pancreatic juice are cholesterol ester hydrolase, phospholipase A and phospholipase B. Lipolytic Enzyme in Succus Entericus. Intestinal lipase is the only lipolytic enzyme present in Succus Entericus.

FINAL PRODUCTS OF FAT DIGESTION; Fatty acids, cholesterol and monoglycerides are the final products of lipid digestion.

ABSORPTION OF LIPIDS

Monoglycerides, cholesterol and fatty acids from the micelles enter the cells of intestinal mucosa by simple diffusion. Further transport occurs as follows:

1. In the mucosal cells, most of the monoglycerides are converted into triglycerides. Triglycerides are also formed by re-esterification of fatty acids with more than 10 to 12 carbon atoms. Some of the cholesterol is also esterified.

Triglycerides and cholesterol esters are coated with a layer of protein, cholesterol and phospholipids to form the particles called chylomicrons. Chylomicrons cannot pass through the membrane of the blood capillaries because of the larger size. So, these lipid particles enter the lymph vessels and then are transferred into blood from lymph.

2. Fatty acids containing less than 10 to 12 carbon atoms enter the portal blood from mucosal cells and are transported as free fatty acids or unesterified fatty acids. Most of the fats are absorbed in the upper part of small intestine. Presence of bile is essential for fat absorption.

STORAGE OF LIPIDS

Lipids are stored in adipose tissue and liver. Fat stored in adipose tissue is called neutral fat or tissue fat. When chylomicrons are travelling through capillaries of adipose tissue or liver, the enzyme called lipoprotein lipase present in the capillary endothelium hydrolyzes triglycerides of chylomicrons into free fatty acids (FFA) and glycerol. FFA and glycerol enter the fat cells (adipocytes or lipocytes) of the adipose tissue or liver cells. Then, the FFA and glycerol are again converted

into triglycerides and stored in these cells. Other contents of chylomicrons such as cholesterol and phospholipids, which are released into the blood, combine with proteins to form lipoproteins. When other tissues of the body need energy, triglycerides stored in adipose tissue is hydrolyzed into FFA and glycerol. FFA is transported to the body tissues through blood.

TRANSPORT OF LIPIDS IN BLOOD – LIPOPROTEINS

Free fatty acids are transported in the blood in combination with albumin. Other lipids are transported in the blood, in the form of lipoproteins.

LIPOPROTEINS

Lipoproteins are the small particles in the blood which contain cholesterol, phospholipids, triglycerides and proteins. Proteins are beta globulins called apoproteins. Classification of Lipoproteins

Lipoproteins are classified into four types on the basis of their density:

1. Very-low-density lipoproteins (VLDL): Contain high concentration of triglycerides (formed from FFA and glycerol) and moderate concentration of cholesterol and phospholipids
2. Intermediate-density lipoproteins (IDL): Formed by the removal of large portion of triglycerides from VLDL by lipoprotein lipase. Concentration of cholesterol and phospholipids increases because of removal of triglycerides.
3. Low-density lipoproteins (LDL): Formed from IDL by the complete removal of triglycerides. These lipoproteins contain only cholesterol and phospholipids.
4. High-density lipoproteins (HDL): Contain high concentrations of proteins with low concentration of cholesterol and phospholipids. All the lipoproteins are synthesized in liver. HDL is synthesized in intestine also.

Functions of Lipoproteins

Primary function of lipoproteins is to transport the lipids via blood to and from the tissues.

Importance of Lipoproteins:-

❖ High-density lipoprotein

High-density Lipoprotein (HDL) is referred as the 'good cholesterol' because it carries cholesterol and Phospholipids from tissues and organs back to the liver for degradation and elimination. It prevents the deposition of cholesterol on the walls of arteries, by carrying cholesterol away from arteries to the liver. High level of HDL is a good indicator of a healthy heart, because it reduces the blood cholesterol level.

HDL also helps in the normal functioning of some hormones and certain tissues of the body. It is also used for the formation of bile in liver.

❖ Low-density lipoprotein

Low density lipoprotein (LDL) is considered as the 'bad cholesterol' because it carries cholesterol and phospholipids from the liver to different areas of the body, viz. muscles, other tissues and organs such as heart. It is responsible for deposition of cholesterol on walls of arteries causing atherosclerosis (blockage and hardening of the arteries). High level of LDL increases the risk of heart disease.

❖ Very-low-density lipoprotein

Very low density lipoprotein (VLDL) carries cholesterol from liver to organs and tissues in the body. It is also associated with atherosclerosis and heart disease.^[10]

CONCLUSION

As by going through the metabolism of lipids it clearly indicates the metabolism of Snehapana behind its physiology is dealt by our Acharyas a way long back and the lakshans which are drawn by the outcome during the procedure, where the fat is being broken down and how it is being digested, and the fat which is absorbed after the digestion of fat is broken into small molecules which is transported transported and stored by which the lakshanas are being observed.

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