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"Conceptual Study of Malashay with Special Reference to Rectum''

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ABSTRACT:-

In Ayurveda, Rachana Sharir is the branch of science where detailed study of human body & description of structure studied, there are many concepts explained by Acharyas, the one of them is Ashaya. Ashaya are considered as Ashayo Adhisthanam. Ashaya means hollow space in the particular structure in our body or viscera, having capacity to provide accommodation to the important constituent of the body like Dosh, Dhatu, Anna, Mala, Mutra, Garbha etc. & they named accordingly as vatashaya , pittashay, shleshmashaya, Aamashya , Pakwashaya, Mutrashaya, Garbhashaya . Acharya Sushrut, Vagbhat & other Acharya considered pakwashaya as the sthan of pakwa anna; where mala is remain with pakwa anna. So they do not explain separate ashaya for mala. But Acharya sharangadhar consider the ashaya for mala & they named it as malashaya. The third member of the trinity of the living body is Mala. The faeces (stool) / Puish is the part of mala which is alsoknown as "vit". Here in this study the Mala is considered as the undigested residue left over after the nutrient fraction of the food which has been separated and absorbed. After complete conversion into mala the malashaya is the place where mala is reside until it is not defecated out & that place can be studied with the help of anatomy and physiology literature. Hence the present study can be used in understanding exact adhishthan of mala, which is beneficial for knowing the root cause or pathogenesis of any diseases or vyadhi with reference to rectum and treat them accordingly.

Key words: - Ashaya, Adhisthan, Malashaya, Rectum.

INTRODUCTION:-

Ayurveda has its own fundamental concepts explained in samhitas. For better understanding of samhitas every concepts, the conflict about the concepts or terminology mentioned in samhitas related to anatomy need to be clarified.

The concept of Ashaya[1] is explained by different Acharyas in various samhitas . Ashaya means hollow space in the particular structure in our body or viscera, having capacity to provide accommodation to the important constituent of the body like Dosh, Dhatu, Anna, Mala, Mutra, and Garbha etc. There are seven types of ashaya explained by acharyas & they named according to the entities present into it as for Vata, the Ashaya is Vatashay, for Pitta, the Ashaya is Pittashaya, For kapha, the Ashaya is Shleshmashaya, For Rakta, the Ashaya is Raktashaya, for Aam anna means partly digested food, the Ashaya is Amashya, For Pakwa anna i.e. for digested food Pakwashaya, for Mutra

Ashaya is Mutrashaya. But in Female one more Ashaya is present which is Garbhashaya where Garbha is reside till Prasav.

During the process of Digestion (Pachana) of food , the food is get converted into Ahar rasa , this ahar rasa is the saar bhag of food which is absorbed by the body for nourishment in small intestinal part of body & after absorption of saar bhag the kitta bhag is formed . Kitta bhag is again going into differentiation to form Purish and Mutra. The part of kitta bhag i.e. Purish which is the remnant of pakwa ann will remains in Pakwashaya i.e. Large intestine, So there is no separate explanation of Ashaya for purisha , but there is need to explain separate ashaya for mala as mala represents the part of the undigested residue left over after the separation & absorption of nutrient fraction from the food . This purnatva for mala is get into the rectum part, so ashaya for mala i.e. malashya can be considered with the Rectum.

AIM:-

Study of Malashaya with special Reference Rectum.

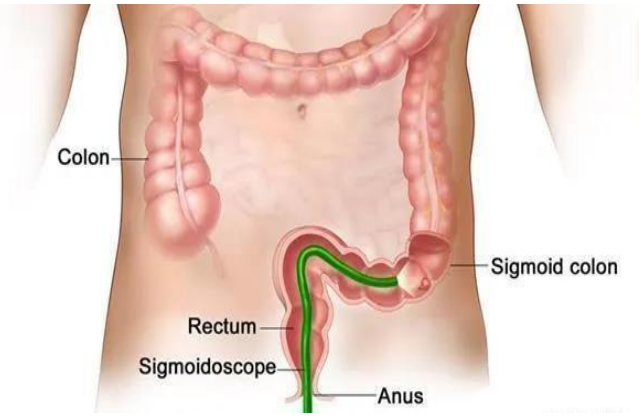
OBJECTIVE:-

1. To study the Ashay from Ayurvedic samhitas.
2. To study Malashaya & Rectum from Ayurvedic science & modern science.
3. To establish the malashaya as Rectum part of body.

Anatomy & Physiology of rectum:-

Rectum[2] is the distal part of the large Intestine, placed between sigmoid colon above & anal canal below. It is situated in lessor part of pelvis, in front of lower three pieces of the sacrum & coccyx.

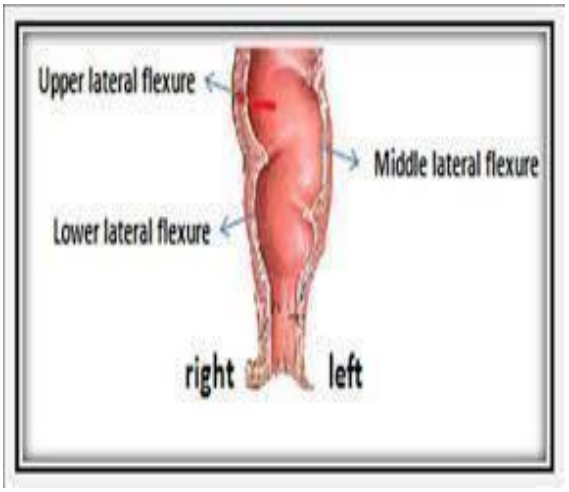
It is about 12 cm long, in the upper part it has same diameter of 4 am as that of sigmoid colon, but in lower part it is dilated to form rectal ampulla. It is not straight in man it is curved in an anteroposterior direction & also from side to side. Rectum shows two types of curvatures in the course:-

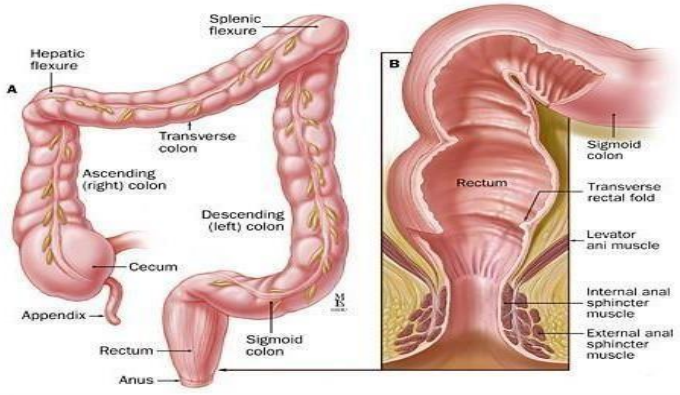


i) Two anteroposterior curvature:-
   a) The sacral flexure of the rectum follows the concavity of the scrum & coccyx.
   b) The perineal floor of the rectum is the backward bends at the anorectal junction.

ii) Three lateral curves:-

a) The upper lateral curve of Rectum is convex to the right.
b) The middle lateral curve is convex to the left & is most prominent.
c) The lower lateral curve is also convex to the right, like upper lateral curve.



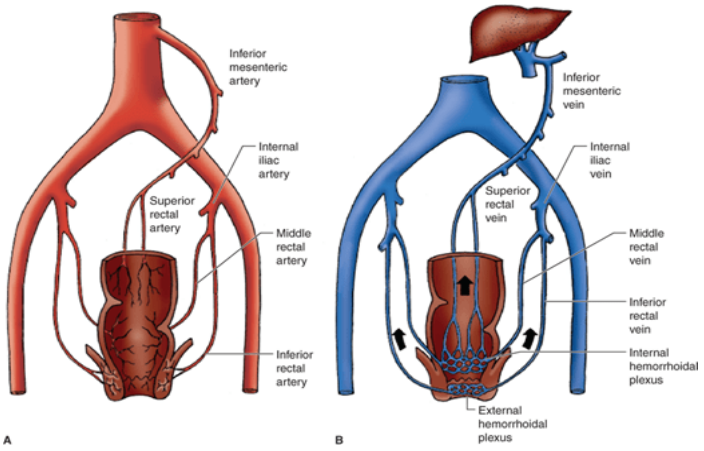


Arterial supply to Rectum:-

1) Superior rectal artery
2) Middle rectal artery
3) Median sacral artery

Venous Drainage from Rectum:-

1) Superior rectal vein: - The Tributaries of the vein continuous with Inferior mesenteric vein which ends into the splenic vein, this splenic vein drain into the portal vein, which carries the nutrients rich blood towards the liver.
2) Middle rectal vein
3) Median sacral vein

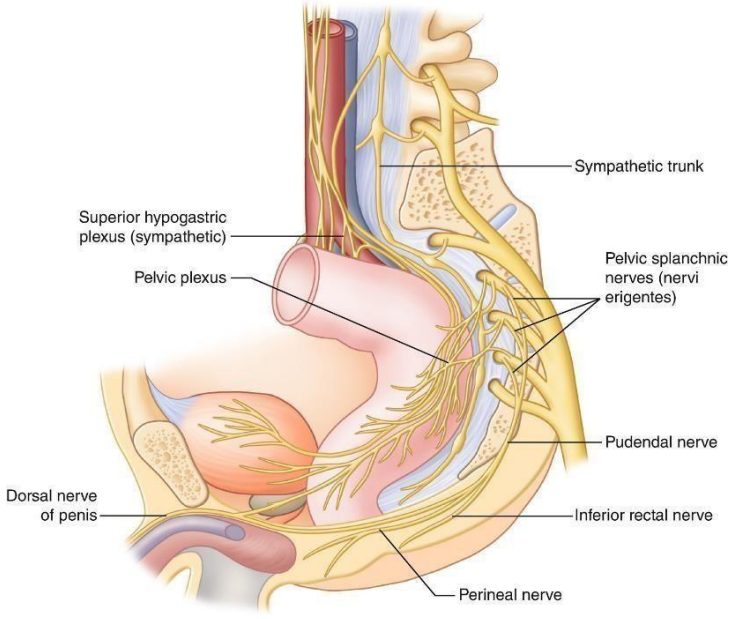


Lymphatic Drainage of the Rectum:-

1) Lymphatic from upper half of the Rectum passes through perirectal & sigmoid nodes.
2) Lymphatics from lower half of rectum passes through internal iliac nodes.
3) Lymphatics from lower part of anal canal drain into superficial inguinal lymph nodes.

Nerve supply to the rectum:-

Rectum is supplied by both Sympathetic (L1, L2) & Parasympathetic (S2, S3, S4), nerve through the superior rectal, or inferior mesenteric & inferior hypogastric plexuses



Rectum has mainly three main functions i.e. absorption, storage & transportation. It receives stool from the colon it act as a temporary storage site for faeces, it take part in holding the stool until evacuation happens. When faecal material received by the Rectum is in small quantity, it is stored in the rectum for some time but when the volume of faecal material is big it affects the rectal distension sufficient to initiate the defecation reflex. when stool / kitta bhag came into rectum sensory massage from sensory reflexes send to Brain ,then Brain sends the motor Reflex to Sphincter part of Rectum that sphincter reflex decide whether the rectal content to be released or not . If the sphincter is in relax state, there is contracts of rectum & it dispose rectal contents. And if the sphincter is in contract

state then the Rectal contents cannot be disposed, rectum accommodates that content so that the sensation of defecation temporarily goes away.

Process of Digestion:-

Digestion[3] is the process by which food is broken down into simple chemical substance that can be absorbed & used as nutrients by the body. The process of digestion is carried out by digestive system which is made up of gastrointestinal tract or alimentary canal & accessory organs (pancreas, liver gallbladder, teeth, and tongue) which helps in the process of digestion & absorption

The Activity of digestive system can be grouped under following headings:-

1. Ingestion: - Ingestion is process of eating or drinking of food into the alimentary tract.
2. Propulsion: - in this there is mixing & movements of food along the alimentary tract.
3. Digestion:- Digestion is the process where break down of food takes place & it can be done by two type of process i.e. by mechanical digestion (break down of food e.g. mastication) & by chemical digestion (breakdown of food by enzymes produced by digestive glands)
4. Absorption: - Absorption process is takes place in alimentary canal digested food substance when passes through the walls of alimentary canal they get absorbed by blood & lymph capillaries.
5. Elimination: - after absorption the remaining undigested & unabsorbed substance are excreted from the alimentary canal in the form of faeces by process of defaecation.

The main Mechanism of digestion includes: - mechanical digestion, chemical digestion. Absorption & Defaecation.

1. Mechanical digestion:- it includes Mastication process cause by chewing action of teeth, Swallowing process in which food is swallowed, Churning in Stomach in which wall of the stomach undergoes periodic movements which help in breakdown of complex food into simple form.
2. Chemical digestion: - it involves the breaking of covalent chemical molecules like carbohydrate, proteins, and lipids by Digestive Enzymes.

3. Absorption: - absorption is the process where the end product of digested food is absorbed by the blood or lymph through intestinal mucosa .The small intestine is the structured of body where maximizing nutrient absorption takes place. The digested nutrients via diffusion or special transport proteins pass through the absorptive cells of the intestine The transportation of Amino acids, minerals, alcohol, water soluble vitamins, and monosaccharides (sugars like glucose) takes place from the intestinal cells into capillaries, & the larger emulsified fatty acids, fat-soluble vitamins, and other lipids are transported into blood vessels from lymphatic vessels . The digestion process is fairly efficient process. The food which is not fully broken down or the indigestible food fibre content moves from the small intestine to the large intestine (colon) through a connecting valve i.e. ileocecal sphincter. In the large intestine there is no digestion of food takes place, only the main role of large intestine is to reabsorb water, minerals such as sodium, potassium. & this reabsorption is important to conserve the water in body. Also there are large number of bacteria residing in the large intestine, The majorityof bacteria present in large intestine are harmless and some of them are beneficial & this bacteria help in synthesizing the essential nutrient, vitamin K, short chain fatty acids, which are essential for our health, from the undigested fibre.
4. Defaecation: The Defaecation is the Voluntary process, the process is caused by peristaltic movements, the digestive wastes, solidified into coherent faeces & through neural reflex in Rectum cause an urge or desire for its removal.

Discussion:-

Acharya Sharangdhar explain the concept of malashaya as the Ashaya where mala is reside.

During the process of Digestion of food (Ahara), the food is get converted into two stages i.e. Aamavastha & pakvastha. Aamavastha is the stage when food (ahar) is converted into partly digested food & this process takes place in Amashaya. Pakvastha is the stage when food (Ahar) is converted into fully digested food i.e. pakwa ann , after complete Digestion (Pachan) of food , Ahar Rasa then converted into Saar bhag & Kitta bhag this saar kitta vibhajan takes place in unduk part i.e. caecum part of intestine. Saar bhag is absorbed by the body for nourishment from small intestine which is above the caecum part. Kitta bhag is came into unduk part where it again divide into mutra bhag & purish bhaag. For mutra there is separate ashaya which is Mutrashaya. But Purish bhag is move along the large intestine to reaches up to Rectum & from Rectum is get defecated out through anal canal.

The purish bhag which is in large intestine is the Purish bhag along with water & remaining absorbable nutrients of the food & their absorption takes place in large intestine, it is not in complete (purna swaroop) stage of mala , when it reaches to the Rectum part of intestine it got the completeness / purna swaroop as a mala . So Rectum is the part of body where complete (purnatva / purnaswaroop) for mala get, &, where mala is reside in small volume, until a big volume accumulated, when big volume of mala comes into Rectum it affect the rectal distension & initiate the defecation reflex. I.e. when stool (mala) receive from sigmoid colon is remain in Rectum part if it is in small quantity but when the adequate volume reached into rectum it stimulate the mechanoreceptors which causes evokes of Recto- anal inhibitory reflex, Rectum act as storage organ for stool. The stool present in the rectum may affect its consistency & help as a contributing factor in the genesis of constipation, so site for malashaya is the Rectum Part of large intestine.

Acharya sharangdhar giving the location of malashaya said that; pawanashaya is present below the amashaya, & malshaya is situated below the pawanashaya, pawanashaya means where Pawan i.e. vata is situated & main site for vata is pakwashaya so pakwashaya is the main site for vata, & malshaya is present below to pawanashaya which can be correlated with the rectum part i.e. the site of mala.

Acharya Charak while explaining the 15 koshtanga in sharir sthan out of them puishdharascha i.e. where purish is hold means the place where Purish is situated is the site of Rectum Part i.e. malashaya part of large intestine.

From Physiological point of view ,from ileocecal junction almost 350 gm of kitta bhag is came into the caecum but after passing to the part of large intestine i.e. Ascending colon, Transverse colon, Descending Colon, colic flexor, sigmoid colon part when it came in Rectum the weight of Kitta bhag is almost 135 gm , which shows after coming into caecum part & large intestinal part kitta bhag isnot in prunaswaroop of mala , still there is some constituents like electrolytes ,organic substance etc. which is absorbed by body & when reaches to rectum Part it get purnaswarrop to mala .

The venous drainage of the large intestine up to the upper part of the rectum is from superior rectal vein, which drain its blood into Inferior mesenteric vein. The inferior mesenteric vein ends in splenic vein, the splenic vein drain their venous blood into Portal vein. Portal vein is the vein which carries nutrients Rich Blood towards the Liver. The blood supply of Liver is 20% by hepatic artery which carries Oxygenated blood, & 80% from portal vein which contain nutrients Rich blood. Up to the upper part of rectum , it drain their blood from superior rectal vein into splenic vein & ultimately into portal vein which indicate up to this part still there is nutrients rich content present which is absorbed by the bloods, before it get converted into stool (mala).

Rectum has apparently three main functions absorption, storage & transportation. If the faecal material received by the Rectum is in small quantity, it is stored in the rectum until but when the volume of faecal matter is large amount it affects the rectal distension sufficient to initiate the defecation reflex.

Conclusion:-

From above discussion Ashaya is the hollow space in the particular structure in our body or viscera, having capacity to provide accommodation to the important constituent of the body. Ashaya for mala can be considered as Rectum (malashay). Rectum is the part where completeness (purnatva / purnaswaroop) to the mala occurs. Until to the rectum, food is not fully digested and also it contains the essential elements which needs to be absorbed by the body. This process of absorption continues till the upper part of the rectum after that there is not the chances of absorption. So, we can say that here the ahar rasa get its purnavta as to be called as mala and where it is stored i.e. rectum part as a malashaya. So, by all the description one can conclude that rectum should be called as malashaya. This study is important, As Mala is also the important constituents, if any abnormality in mala can leads to disease in body so if we know the exact location of mala then it is very easy for physician to know its pathogenesis & to treat it.

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