

## CONCEPT OF GALL BLADDER AND CHRONIC CHOLECYSTITIS AND BILIARY LITHIASIS IN AYURVEDA

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### ABSTRACT

Origin of Ayurveda takes place from *Vedas*. At that period maximum peoples are free from disease, but due course of time health was going to be decreases and manifestation of diseases are increase. Clinical finding and management of diseases has been explained by various author in their Ayurvedic text. Clinical finding of Chronic Cholecystitis and cholelithiasis can be correlated with *Shakhasrita Kamala*, *Pittaja Udoor Shula* and *Pittodar*. Treatment of the disease is the breakdown of pathology of disease. Ayurvedic way of complete pathogenesis of Chronic Cholecystitis and cholelithiasis, can be explained by *Shata-kriyakala*. Here we will discuss about the anatomy of Gall bladder and pathology of Chronic Cholecystitis and cholelithiasis.

**Keyword:** Chronic Cholecystitis and cholelithiasis, *Shakhasrita Kamala*, *Pittaja Udoor*

### INTRODUCTION

Chronic Cholecystitis and cholelithiasis is immersing one of the commonest general surgical problem in India as well as world. In *Vedic & Samhita* period clinical manifestations of *Pittodara*, *Pittajudar Shool Sanipatodar*, *Yakrittdalyodar* and *Shakhasrita kamala* are somewhat similar to the Chronic Cholecystitis and cholelithiasis. There were no tools to compare accurately so that it was not given a major importance and it was explained in short. Gallbladder is not clearly described in Ayurvedic text but classical Ayurvedic literature have got many references which probably indicates that gallbladder can be taken as "*Kloma*" in Ayurvedic classical text. The position of "*Kloma*" in Ayurvedic text may be correlated by different author as follow:

*Dalhana* in his commentary on *Sushruta Samhita* described *Kloma* as *Tila*

like structure situated in the right side of the abdomen below the liver that can be consider as gallbladder.

In *Adhmal* commentary of *Sharangdhar samhita*, Anatomical and Physiological concept of *kloma* has been mentioned. According to him "*Kloma*" is situated near the liver and it is full of waste product of blood (Bile). He has also mentioned *Tila* for *Kloma*.

In Relation to development of *Kloma* *Sharangdhar*<sup>4</sup> described that "*Kloma*" develops from the waste product of blood". *Kashyap* also described the position of *Kloma* which is just below the liver while describing various *Kosthtang* in *Sharir Sthan* of his *Samhita*. In *Ashtanga Samgrah* liver and *Kloma* have been described in right side, below to liver which also suggests the nomenclature of gallbladder. Thus we can conclude from the facts

presented above that the concept of *Pittashaya* is already laid in Ayurveda but morphologically it is described along with the liver. However, *Kloma* may be taken as gall bladder. In Ayurvedic Samhita gall bladder i.e. *Kloma* would have been considered along with the liver that is why no separate description is available. A better appreciation of the concept obtained by referring the liver spleen diseases i.e. "*Yakrit pleeha roga*". Particularity *Shakhashrita Kamala* may be correlated with extra hepatic biliary diseases, where some obstruction in the biliary tract has been considered as the primary cause of disease. Again no description of *Ashmari* and other diseases pertaining to *Pittashaya* or *Pittakosh* is available in the classical text.

#### **BILE IN AYURVEDIC TEXT:**

The Physical characteristics and qualities of *Pitta* described in the ancient Ayurvedic texts bear a striking resemblance to hepatic bile. The pigments of bile i.e. the bilirubin and biliverdin are essential constituents of hemoglobin complex. While in Ayurvedic references *Pitta* as the *Vikriti* or by product of *Rakta* (i.e. blood is equally significant as above). Bile is generally thought to be the modern analogue or representative of *Pitta*. It will be appreciated from the physiological description of *Pitta*, though there is much similarity between the two, yet *Pitta* is much wider term in Ayurveda. *Pitta* is *Tridosha*, it may be correlated with gastric juices. Intestinal juices with various enzymes helps in digestion i.e. *Agni* in Ayurveda, digest *Anna* as *Anarasa* and *Kitta*.

The phenomenon of *Pitta* comprehends a large group of bio-chemical substances as described in Ayurveda. *Pitta* have five types i.e. *Pachak pitta* helps in digestion, *Ranjaka Pitta* helps in haemopoiesis, *Alochaka Pitta* helps in visual function. Emotions, angry and mental functions are de-

pending on *Sadhaka pitta*. The colour of the skin depends on the *Bhrajaka pitta*. The reference by *Vagabhatta* explains that *pitta* is the byproduct of *Rakta* because of its intimate coexistence with *Rakta* as well as its capacity to *Vitiate Rakta*. Moreover, *Pitta* seems to be homologous to *Rakta* due to similarity in color and odor both. Further both *Rakta* and *Pitta* have a common site in *Pliha* (Spleen) and *Yakrit* (Liver). The implication of this view that *Pitta* is *mala* (waste product) of *Rakta*. It can be summed up as follow in the light of known facts of today. We find support for this hypothesis from Prof Sherlock (1953). One of the renewed authorities on liver diseases is that bile pigment is the only waste product resulting from hemoglobin breakdown, with this references it may be concluded that *Rakta* is the seat of *Pitta*. The pigments are also the (waste product) *Mala* of the blood.

#### **HEPATOBIILIARY DISEASES: IN AYURVEDIC TEXT-**

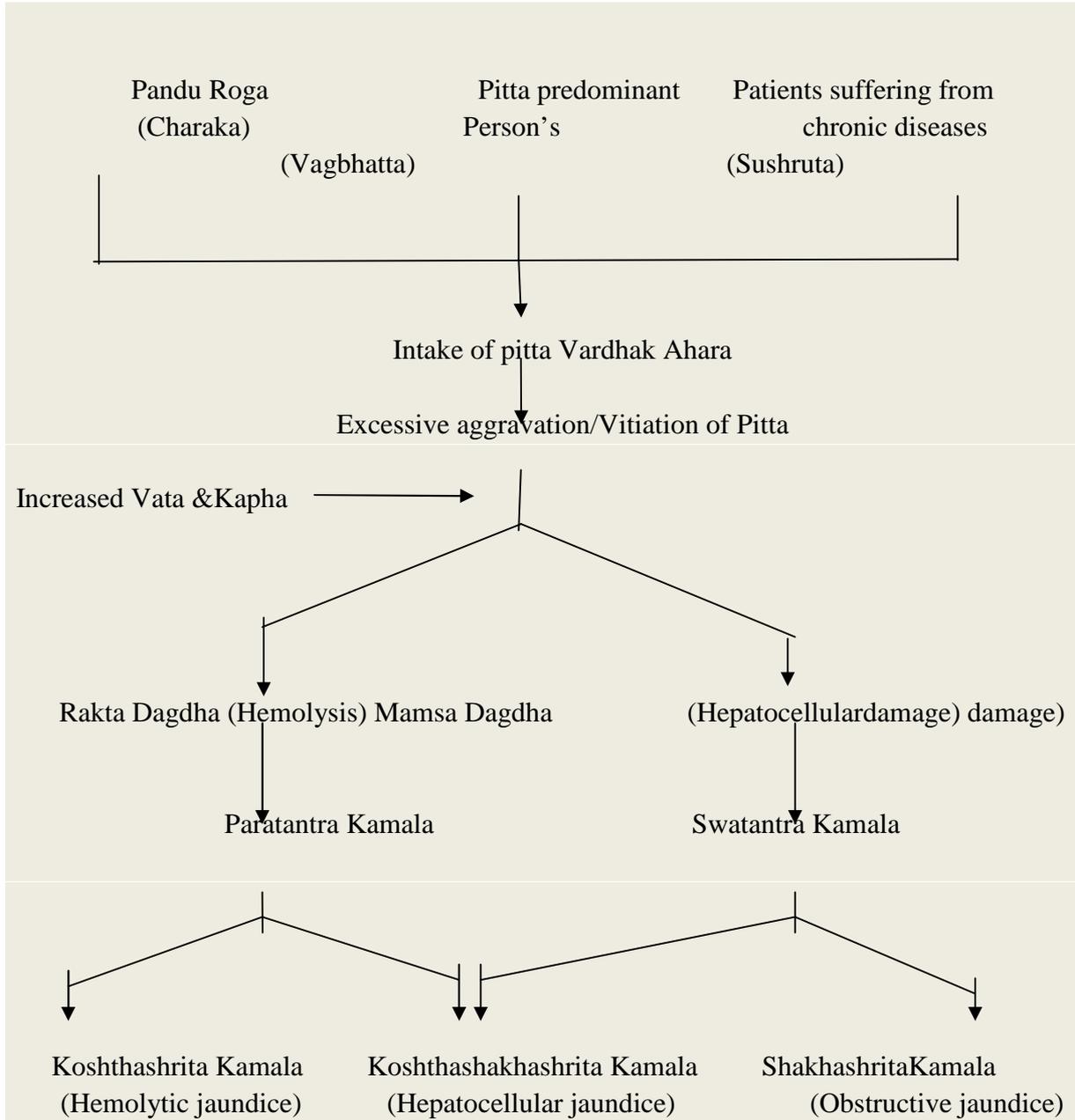
*Sushuruta* mentioned eight types of *udar roga* i.e. *Vatodar*, *Pittodar*, *Kaphodar*, *Sannipatodar*, *Yakritpleehodar*, *Boddhagudodar*, *Parisravyodar* and *Dakodar*. On the basis of clinical correlation *Pittodar* and *Yakrit Pleehodar* may be correlated with biliary disease. *Sushuruta* explained clinical feature of *Pittodar* as yellow color of abdomen, yellow color of eyes, urine, stool and nails which may be correlated with biliary disorders. While *Yakritpleehodar* correlate with Splenomegaly and hepatomegaly. Which correlated that swelling in left side may be of Splenomegaly and right side it may be of hepatomegaly. Other diseases like *Pandu*, *Kamala* and *Shula* described in *Madhav Nidan* may be clinically correlated with Hepato biliary disease, while describing *Kamala*; *Charaka* described two types of *Kamala roga*.

- (i) *Shakhashrita Kamala* (Obstructive jaundice)
- (ii) *Koshthashrita Kamala* (Hepato cellular jaundice)

In Ayurvedic texts *Charak* mentioned that *Kamala* develops as complication of *Pandu* with these things *Charak* explained *Samprapti* of *Kamala*. When the patient suffering from *Pandu roga* & taken a diet

of *Pitta* aggravating so that aggravated *Pitta* burns the *Rakta* and *Mamsa Dhatus* causing the disease *Kamala*. In modern views *dagdha* process may be correlated with catabolic process. In *rakta dagdha* there is dearranged catabolic state of RBC i.e. hemolysis, which may be correlated with hemolytic Jaundice.

**SAMPRAPTI**



*Dagdha* is commented by *Chakrapani* as '*Pradushya*' i.e. a patient of *Pandu roga* continues to use *pitta vardhaka Ahara* and *vihara*, aggravated *pitta* vitiates *Rakta* and *Mamsa Dhatus* causing the disease *Kamala*.

Here needs mention *rakta dagdha* and *mamsa dagdha*.

**RAKTA DAGDHA :**

It can be correlated with the hemolysis of old RBC. It manifests as hemolytic jaundice. More over it also implies to the vari-

ous blood borne pathogens circulating in blood, known to cause jaundice e.g. viral infections, bacterial infections, circulating immune complexes. Since *dagdha* refers 'pradushana of rakta dhatu'.

**MAMSA DAGDHA:**

*MaPsa dhatu* is refers to the supporting tissue of the body. At the tissue level, it is the cell membrane which maintains the shape and integrity of the organelle or the tissue proper. Therefore *mamsa dagdha* refers to injury to cell membrane of hepatic parenchymal cells.

During the process of biotransformation of *dhatu*, *rasa* is converted to *rakta* with the help of *raktagni* (along with *bhutagnies*), *Pitta* is produced as a byproduct. If there is any derangement at the level of *Dhatwagni* or *Bhutagni*, *malarupa pitta* is produced whose accumulation leads to the manifestation of *kAmala*. This is in conformity with the formation of bilirubin from heam. Here *mala* refers to bilirubin in systemic circulation, urobilinogen in urine and sterco-bilinogen in stool.

**SHATKRIYAKALA OF KAMALA:**

**SANCHAYAVASTHA:** The normal breakdown process of *rakta* (RBC) is accelerated in *raktavahasrotas* and its *moola*. *Yakrit* (liver) and *pliha* (spleen) leads to the excess formation or the *mala roopa pitta* or bilirubin.

**PRAKOPAVASTHA:** When the liver and spleen is unable to eliminate the *mala roopa pitta* (bilirubin) it gets accumulated in liver and spleen.

**PRASARAVASTHA:** The accumulated unconjugated bilirubin in liver and spleen gets into circulation and spreads to various parts of the body.

**STHANASANSRAYAVASTHA:** An attempt is made by the liver to conjugate, the unconjugated bile which is by product of *Rakta* but due to reduced function of the liver unconjugated bile is regurgitated

back into the circulation and mild icterus is seen in this stage.

**VYKTAVASTHA:** The concentration of *mala roopa ranjaka pitta* becomes very high in the circulating blood and produces yellow colouration of skin, conjunctiva, mucous membrane, urine and stool. In this stage *Kamala* is clearly established.

**BHEDAVASTHA:** *Kamala* developed by the above process either resolves or converts into *Kumbh Kamala*.

**SAMPRAPTI GHATAKA :**

*Dosha* : *Pitta*

*Dushya* : *Rakta, Mamsa*

*AdhiDtana* : *Kostha / Sakha*

*Srotas* : *Rasavaha, Raktavaha, Annavaha, Purishavaha*

*Srotodusti* : *Atipravritti, Sanga, Vim Árgagamana*

**POSSIBLE CORRELATIONS:**

**Koshtáðritak Ámala :** Haemolytic jaundice

**KoòðhaðakháðritakÁmala:** Hepatocellular jaundice with or without intrahepatic cholestasis

**Īakháðritak Ámala:** Obstructive jaundice  
:Hepatocellular failure with PTH with ascites.

**Halimaka:** Chronic obstructive jaundice (Post Hepatic)

**Pánaki:** Hepato-renal syndrome

*Pattic shula* described in *Madhav Nidan* can be correlated with biliary cholic due to cholecystitis. In modern science colicky pain is due to be obstruction in the lumen. In Ayurvedic view, according to *siddhanigraha shula* is due to *Shrotawarodha* i.e. obstruction in the channels.

**CONCLUSION**

Finally, we can say that Gall bladder is *Kloam* in Ayurvedic explanation. Different clinical manifestation of Chronic Cholecystitis and biliary lithiasis is explained in Ayurveda as variety under the

heading of different disease as like *Shakhasrita Kamala*, *Pittaja Udoor Shula* and *Pittodar*. In recent era Ayurveda explain the management of these diseases collectively under heading of *Yakratplihodar vikara*. Use of the drugs explain under the heading of *Yakratplihodar vikara* are effective in case of Chronic Cholecystitis and biliary lithiasis

So as per the famous quotation of *Charak* that there is no need of giving name of every disease, As per our knowledge we should understand them by their *Samprapti*. Some different manifestations of Chronic Cholecystitis and biliary lithiasis, it can be under stand by pathogenesis (*Shatakriyakala*) as per above and treated by the drugs explained under *Yakratplihodar vikara*.

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