



THE CONCEPT OF CHOLELITHIASIS AS PER AYURVEDIC TEXT

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ABSTRACT

Gallstones are solid particles that develop in the gallbladder, a tiny organ underneath the liver. To aid digestion, the gallbladder stores and releases bile, a fluid produced by your liver. Bile also transports wastes such as cholesterol and bilirubin, which your body produces as red blood cells are broken down. Gallstones can develop as a result of several factors. Gallstone disease caused by cholesterol is a frequent clinical illness impacted by hereditary factors, advancing age, female gender, and metabolic variables. Gallstones are called "*Pittashmari*" in *Ayurveda*, where "*Ashmari*" means "stones" and "*Pitta*" refers to the unbalanced *Pitta dosha* of bile in the gall bladder. This happens when excess *Kapha dosha* combines with the *Pitta* characteristics of the viscous fluid bile, causing it to become dry and hardened. This always causes symptoms such as "*Alasya*," or lethargy, "*Gaurav*," or abdominal heaviness, and a decrease in "*Agni*," or the digestive fire. The ancient texts of *Charaka Samhita*, *Ashtanga Hridaya*, and *Sushruta Samhita* not only explain the pathophysiology of gallstones, but also provide a wealth of natural treatments for balancing the *doshas* and resolving cholelithiasis.

KEYWORDS: *Pittashmari*, Cholelithiasis, *Pitta*, Gallstone.

INTRODUCTION

Gall stones are one of numerous disorders that can develop in the gallbladder (cholelithiasis). Cholelithiasis (gallstone development) is influenced by a mixture of causes, including excess cholesterol saturation of bile, rapid nucleation of cholesterol monohydrate in bile, and bile stasis or delayed gallbladder emptying due to decreased gallbladder motility. Among India, it is more frequent in women in the north, north-east, and east than in the rest of the nation. Gall Stone ailment is not directly mentioned in Ayurvedic texts. In Ayurveda, the term *Ashmari* refers to a kind of stone that is only mentioned in the context of *Bastigata Ashmari* (urinary calculi). Due to the similarities in location and function, it was discovered that bile released by the gallbladder can be connected with *Accha Pitta* described in Ayurveda after examining the Ayurvedic literature. The pathophysiology of the disease arises as a result of improper *Kapha* production during digestion and subsequent vitiation as a result of *Vata*.^[1]

Ayurvedic concept of *Pittashmari*

Pittashmari refers to gallstones or biliary calculi. In Sanskrit, '*Pitta*' refers to bile, tissue metabolism, and body heat. *Pitta's* physical characteristics and properties, as described in ancient Ayurvedic literature, are strikingly similar to bile. The pigments of bile, bilirubin and biliverdin, are important components of the haemoglobin complex, while *Pitta* is regarded a *vikriti* or byproduct of *rakta* in *Ayurvedic* literature. The word "*Ashmari*" signifies "stone" or "calculus." Although no Ayurvedic textbook specifies *Pittashmari* as a disease of the human gallbladder, the principle of its aetiopathogenesis of stone development is discussed in several Ayurvedic books.

All of the Major and Minor literatures described about eight types of *Udar roga*, but in *Pittodar* and *Yakritpleehodar*, there is fever, fainting, burning sensation, thirst, bitter taste in the mouth, giddiness, diarrhoea, yellowish blemishes of skin, nails, eyes, face, urine, and stool, feeling of heat and burning as if by movement of hot smoke, and enlargement of liver on the

right side, among other symptoms. They are almost identical to the clinical characteristics of a biliary disease.

There is also mention of *Shakhashrita kamala* in the *Charak Samhita*, which can be considered obstructive jaundice where some obstruction in the biliary tract has been considered as the primary cause of diseases pertaining to *pittashaya* or *pittakosh*, and in Madhav Nidan eight types of Shula roga are mentioned, among which *Pittaj shula* resembles the signs and symptoms of biliary colic.^[2]

Acharya *Charak* expanded on the calculi in the gallbladder of the cow, indicating that when aggravated *vayu* dried up the semen, urine, *pitta*, and *kapha* housed in the urinary bladder, stones gradually form there, as *Gorochan* is produced in bile inside the gallbladder of the cow.^[3]

The pathophysiology of stone development in the urinary bladder is discussed in the *Sushruta Samhita*, and sediments are eventually deposited from clean and translucent water at the bottom of a new pitcher that contains it. As the wind and light operate together to compress rainwater into hailstones, the body *vayu* and *pitta* work together to concentrate *kapha* in the bladder and turn it into stone.^[4]

This clearly indicates that they had observed a similarity in the formation of stones in the presence of a primary nucleus, and this has been beautifully illustrated with comparison of sedimentation, in clear form the basis of stone formation, *sleshma* bind it together. The pathophysiology of stone development mentioned is comparable in both Ayurvedic and contemporary concepts.

Though all *ashmari* is generated by *tridosha*, the names *vataj*, *pittaj*, and so on are only used to signify the dominance of one or the other dosha. Second, *kapha* creates the nucleus of *ashmari* in both *vataj* and *pittaj* kinds. *Sushruta* has said unequivocally that all *ashmari* are reliant on *kapha*. Calculus forms can be understood according to dosha, for example, imitating *kadamba* flowers is *vatik*, and so forth. When the calculus is disrupted by *vayu*, it is known as *sarkara* (gravel).

It is possible to conclude that the comparison of *Pittashmari* with *Gorochana*, which forms in the case of cow gallbladder, may have some relevance to gallbladder and its symptomatology in humans. *Sarkara* is similar to biliary sludge in the case of gallbladder disease. There is no mention of laparotomy being used to explore the gallbladder area for either therapeutic or diagnostic purposes. It is not certain that ancient academics imagined *Pittashmari* to be gallstones.

Gall stone formation pathogenesis

The major causal component is the separate contributions of the so-called triple defect-supersaturation, nucleation flaws, and gallbladder stasis. There are other hypotheses concerning gallstone development, such as the Lithogenic liver vs the Guilty gallbladder versus the Indolent gut, but there is no unified theory.

Gallstone Composition

a gallstone categorization in which stones were classified as inflammatory: Multiple, faceted, yellow-brown stones; metabolic: solitary, yellow-brown calcium bilirubinate stones or multiple, irregular black pigment stones; mixed stones with characteristics of both metabolic and inflammatory stones; and stasis stones, which are oval, soft yellow-brown stones that form primarily in the common bile duct. The bulk of findings show that the centre of gallstones includes pigmented material, calcium bilirubinate, which is typically bound in a glycoprotein organic matrix. The coloured organic matrix is present in a stratified form in the remainder of a stone, alternating between planes of cholesterol crystals. This implies that gallstones form in stages around a core of bile pigment and glycoprotein. Stones contain variable quantities of Na, K, P, Fe, Mg, Ca, Pb, S, Al, Ni, Cr, Ag, and B, according to electron probe examination.

Gallstones Diagnosis –Gallstones may need to be examined after they have been surgically removed. They include cholesterol, bile pigments, calcium phosphate, and calcium carbonate, among other things. Gallstones can be single or numerous in size, as well as large or tiny. Those that include calcium salts are radio-opaque. Single stones are unusual, however they are generally made up of cholesterol and develop as a result of a disruption in the physicochemical balance that ordinarily keeps cholesterol in micellar form in the bile. It is not uncommon for many of these stones to appear at the same time. Their presence, however, predisposes to Cholecystitis with debris accumulation and reduced gallbladder emptying. On such debris, a combination of cholesterol and bile pigments is deposited, and the resulting 'mixed' stones are the most frequent kind. They are numerous and, as a result of the gallbladder's tight packing, frequently have faceted surfaces. The amount of calcium salts in them varies. Whereas cholesterol stones are frequently white or light in colour, mixed stones are generally fairly black. Stones made mostly of bile pigments are far less common, although they are linked with persistent hemolytic anaemia. They are generally numerous and very tiny, like grains of black sand. The pigment is mostly bilirubin in the form of calcium bilirubinate, although it may also contain biliverdin and bilifusin.

Pittashmari and Gallstones: A Comparison^[5]

As there is a need for a holistic approach, I attempted to compare *Pittashmari* to gallstones and categorised it according to doshas based on the following parameters.

Classification of types of Pittashmari

Type of Ashmari	Varna/Colour	Satah/Surface	Akriti/Structure Like	Sadrasta/Resemblance with
Kaphaj	Sweta	Snigdha	Mahan kukkut-anda	Madhuk pushpa varna
Pittaj	Reddish yellow	Smooth	Bhallatakasthi	Madhu varna
Vataj	Syava	Kathina	Visam, khara, like kantak	Kadamba pushpa

Gallstones are classified according to their kind

Types of stone	colour	surface	struture	size	number	component
Cholestrol	Yellow-white	shiny	round	Big	Single	Cholesterol
mixed	brown	faceted	round	Small	Multiple	Cholesterol, pigment
pigmented	black	Dull or spicky	irregular	Small	Many	Ca bilirubinates, Pigment polymer

Treatment

Oral medications -*Gokshura churna, pashanbheda churna, punarnava churna, varun churna, yavak kshar, kalmi sora, hajaral narikela lavan, sweta parpati etc medications used. Narikel lavan + shweta parpati* having excellent results in *pittashmari*.

B) *Shodhan:Vaman, Virechan, Shodhan basti*, These *panchakarma* procedures advised according to *prakruti* having excellent results in *pittashmari*.

DISCUSSION

Pittashmari, as described in *Ayurveda*, refers to biliary lithiasis, which affects people of all ages and is the most prevalent gastrointestinal illness. There is *vikriti* of *pitta* or *rakta* byproduct in *Pittashmari*, and *Ashmari* denotes stone/calculus. The calculi in the gallbladder of cows may have some link to the gallbladder and its symptomatology in humans, according to *Acharyas*. Gallstones are documented in ancient and current literature, despite the fact that biliary lithiasis has a complex aetiology with no unifying explanation concerning nucleating agents. Gallstones include variable quantities of Na, K, P, Fe, Mg, Ca, Pb, S, Al, Ni, Cr, Ag, and B, according to electron probe examination. *aacharyas* categorised *Pittashmari* as *vataj, pittaj, and kaphaj* based on its composition and characteristics, which are comparable to *Mutrashmari's doshik* status (*as vataj, pittaj, and kaphaj*).

CONCLUSION

On the basis of similarities in location, function, and abnormalities, The *Accha Pitta* can be termed bile. Because *Accha Pitta* is produced by the liver and stored in the gall bladder, the gall bladder is referred to as *Pittashaya*. According to *Ayurveda*, the most important factor in gall stone formation is bile super saturation with cholesterol, which is linked to *Vikrit Kaphasanchiti* in *Pittashaya*. The phenomena of anti-nucleating factor deficit and increased cholesterol monohydrate crystal nucleation is comparable to *Kapha-pitta Samsarga*. Gall bladder hypo motility, the third mechanism, has been linked to *Margavarodhajanya Vataprakopa*.^[6]

REFERENCES

1. The Concept of Cholelithiasis as Per Ayurvedic Text, Londhe P D, International Journal of Ayurvedic Medicine, 2016; 7(1): 6-9. ISSN: 0976-5921.
2. Madhav nidan.
3. Charak Samhita.
4. Shushruta Samhita.
5. Understanding Cholelithiasis As per Ayurvedic Text, Durgesh Kumar, Original Research Paper, 2021; 10(4). PRINT ISSN No. 2277 – 8160.
6. Review Article of Pittashmari W.S.R to Cholelithiasis, Meenakshi Verma, International Ayurvedic Medical Journal, ISSN: 2320 5091.