



## A GLIMPSE ON GB STONES AS PER AYURVEDIC PERSPECTIVE

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## ABSTRACT

Bile Pigment calcium and cholesterol are precipitated into gallstones in biliary tract called 'Pittashmari'. Cholelithiasis refers to the presence of one or more gallstones in the common bile duct [CBD]. Gallstone/Cholelithiasis are hardened deposits of digestive fluid that can form in your Gallbladder. Ayurvedic classics do not project Cholelithiasis as a separate disease entity but spectrum of features in cholelithiasis can be outlined among various diseases mentioned like Pittaja udara shola, Yakridalyodara, Shakhshrita kamala and pittaja gulma. Cholelithiasis is primarily managed by surgery, but there is a potential demand to combat this disease with naturally safe and effective ayurvedic treatments. There is an attempt to review various aspects of cholelithiasis discussed in the format of Ayurveda and to manage the same.

**KEYWORDS :** Pittaashmari, Gallstones, Cholelithiasis, GB Stones

## INTRODUCTION

Cholelithiasis i.e., gallstone disease is one of the most common diseases of upper digestive tract, for which patients visit hospital with complaints of flatulence, dyspepsia and upper abdominal pain. Presence of gallstones in the gallbladder may lead to acute cholecystitis<sup>1</sup>. Gall stones are common medical problem in the general population often leading to surgical intervention. It is more often seen in women than men with the ration of 4:1. It is said that gall stones are more common in Fat, Fertile, Forty and Females(4f's)<sup>2</sup>.

Cholelithiasis can be co-related with Pittashmari according to Ayurvedic classics. The disease gallstone has not been described directly in Ayurvedic classics. The word Ashmari stands for stone, which is described only in the context of Bastigata Ashmari. Gall bladder stores Pitta, hence the organ gall bladder is considered as Pitta ashaya and the stone formed in it can be considered as Pittashmari<sup>3</sup>.

The prevalence of cholelithiasis varies and has been reported as 2 – 29% in India and increased in the recent years, Gallstones are conveniently classified into cholesterol stones and pigment stones, although the majority are of mixed composition. Gallstones contain frequent quantities of calcium salts, including calcium bicarbonate, phosphate and palmitate, which are radio-opaque. Gallstone formation is multifactorial, and the factors involved are related to the type of gallstone<sup>5</sup>.

## View ACC To Modern Interm Of GB Stones Or Cholelithiasis

Gallstones or cholelithiasis is one of the most prevalent digestive disorders. It is result of both chronic disease process and cause subsequent acute disorders of the pancreatic, biliary hepatic and GI tract. These are hard masses, that can cause severe upper right abdominal pain radiating to right shoulder, as a result of blocked bile flow. The word can be split form as chole-bile, Lith-Stone, Iasis-Process together form the gallstone<sup>6</sup>.

Most patients are asymptomatic but 10% of patients will develop symptoms within five years and 20% of patients will develop symptoms within 20 years of diagnosing gallstones, GB stone prevalence also increases with age. The true prevalence rate is difficult to determine because calculous disease may often be asymptomatic.

Calculous disease of the biliary tract is the general term

applied to diseases of the gallbladder and biliary tree that are a direct result of gallstones<sup>7</sup>. Cholelithiasis or gallstones are hardened deposits of digestive fluid that can form in your gallbladder. The gallbladder is a small organ located just beneath the liver. The gallbladder holds a digestive fluid known as bile that is released into your small intestine

Causes Of Gall Stone Formation<sup>8</sup>

- High caloric and high fat diet.
- Obesity – normal bile acid pool and secretion but increased biliary secretion of cholesterol.
- Weight loss prolonged fasting causes gall stone formation. Mobilization of tissue cholesterol leads to increased biliary cholesterol secretion while enterohepatic circulation of bile acids is decreased.
- Female sex hormones;
- a. Estrogen stimulates hepatic lipoprotein receptors, increased uptake of dietary cholesterol and increased biliary cholesterol secretion.
- b. Natural estrogens, other estrogens and oral contraceptives lead to decreased bile salt secretion and decreased conversion of cholesterol to cholesterol esters.
- Increasing age increased biliary secretion of cholesterol, decreased size of bile acid pool, decreased secretion of bile salt.
- Gallbladder hypo motility leading to stasis and formation of sludge, which is due to; a. Prolonged parenteral nutrition
- Fasting
- Pregnancy
- Drug such as Otreotide
- Drug induced increased biliary secretion of cholesterol due to Clofibrate therapy.
- Genetic factors as per modern science genetic factors accounted for 25%.
- Kaphakara Nidana-Avyayama, Diwaswapna, Snigdha-madhura-picchila-guru ahara, Dadhi, gritha, mamsa sevana
- Pittakara Nidana-Upavasa, katu-amla-lavana ahara sevana

## Signs And Symptoms Of Cholelithiasis

We don't get particular clinical manifestations for pittashaya ashmari in Ayurveda. But lakshanas explained in Haleemaka, pittaja udara shoola, pittodara can be considered as complications occurred due to the presence of gall stone.

Apart from that, the lakshanas explained for Sama vatha (Vibandha, Agnisaada, Antrakoojana, Angavedana, Angashotha, Thoda, Angagraha, Snehadi vatakramena vridhi, Ratri vridhi, Gourava, Arochaka)<sup>9</sup>.

Sama kapha (Udgarabhava, Pralepatwa, Picchilatwa, kshudhanasha), Rasa pradoshaja vikara (ashrddha, Aruchi, Asya vairasya, Arasanjata, trupti-flatulent dyspepsia, Hrilasa, Gourava, tandra, Angamarda, Jwara, Pandutwa, Srotasam rodha, Angasaada, Agninaasha), Parsh-washoola<sup>10</sup>

- ✓ Dull aching pain in right hypochondriac region.
- ✓ Heaviness in right hypochondriac region.
- ✓ Ultrasonographical visualized gall stone.

### Pathogenesis

As disease Gall Stone has not been described directly in Ayurvedic classics. The hetu may be all the three Doshas viz. Vata, Pitta and Kapha play a role in formation of gallstones. Excessive increase of Pitta (caused by hot, spicy food, alcohol etc.) creates the basis for stone formation. Kapha increased by fatty, heavy foods mixes with Pitta and produces a highly sticky mixture. Vata dries this mixture and moulds it into shape of a stone. Ayurvedic treatment eliminates the need for surgery by assisting the body to expel the stones naturally<sup>11</sup>.

- a) Physiochemical Factors<sup>12</sup>
- ✓ Increased hepatic cholesterol secretion and chronic supersaturation bile
  - ✓ Enhanced cholesterol crystal nucleation in gallbladder bile.
- b) Motility Defects
- ✓ Gallbladder motility defects
  - ✓ Gallbladder stasis
  - ✓ Intestinal motility defects. Prolonged intestinal transit, longer migrating motor cycles and disrupted motilin release.

### RISK FACTORS

#### Cholesterol Stones

- o Age over 40 years
- o Female gender
- o Parity
- o Estrogen therapy
- o Rapid weight loss
- o High-calorie diet
- o Sedentary lifestyle
- o Diabetes mellitus type 2
- o Dyslipidemia (increased LDL cholesterol level)
- o TNP
- o Gastric bypass surgery
- o Octreotide therapy
- o Somatostatin secreting tumors
- o Family history of cholelithiasis

#### Pigment Stones

- o Cirrhosis
- o Hemolysis
- o Sickle cell disease
- o Bacterial or helminthic biliary tract infections

### Management

As per the etiology and clinical presentations, Cholelithiasis is akin to Pittashmari described in Ayurveda. Therefore, taking Pittashmari line of treatment into account, The aushadha chikitsa in Asmari include Sneha, Kshara, yavagu, yusha, and kashaya prayoga with Ashmari hara drugs

#### Kshara Prayoga In Asmari<sup>13</sup>

Paneeeya kshara prayoga is indicated in Ashmari by Sushruta, hence paneeya kshara can be given in pittashayagata Ashmari.

#### Kaphahara Chikitsa

As pathology of gallstone is similar to Shakhshrita kamala,

the kaphahara chikitsa can adopted to relive ruddha pitta.

We can prescribe

- Gokshura Churna
- Pashanabheda Churna
- Punamava Churna
- Varuna Churna
- Yavaka Kshara
- Narikela Lavana
- Shweta Parpati

#### As Per Modern<sup>14</sup>

Non-invasive Treatment Of Gallstones<sup>50</sup>

1. Oral dissolution therapy
2. Extracorporeal shock wave lithotripsy.

Minimally Invasive Gallbladder Procedure

1. Percutaneous cholecystostomy
2. Contact dissolution therapy
3. Percutaneous cholecystolithotomy.
4. Laparoscopic cholecystectomy

Invasive Procedure

1. Open cholecystectomy

### CONCLUSION

As per Ayurveda description we may correlate Gallstones as Pittashmari. On the basis of similarity in position features and abnormality. This Accha Pitta is made from the liver and stored in the gall bladder, so the Pittashaya is considered to be the gall bladder. Bile super saturation with cholesterol, which can be associated with Vikrit Kaphasanchiti in Pittashaya as per Ayurveda, is the most significant in gall stone formation. The cholesterol crystal phenomenon of deficiency of anti-nucleating factors and accelerated nucleation is very similar to Kaphapitta Samsarga. Margavarodhjanya Vataprakopa can be associated with the third mechanism, i.e., gall bladder hypo motility. Hence people are moving towards safest way of treatment modality as mentioned in ayurveda which can be cured through oral medication and dietary habits.

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