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AYURVEDIC MANAGEMENT OF CHOLELITHIASIS (PITTASHMARI) - A CASE STUDY

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ABSTRACT:

As a matter of fact, surgery (cholecystectomy or gall bladder removal) is the most common form of treatment for cholelithiasis (gallstones). However, the fact that surgically removing gallstones requires the removal of an entire organ has led to a growing interest in non-surgical treatments for gallstones. Besides alleviating symptoms, treatment for gallstones is necessary to avoid a progression that can result in severe conditions such as acute cholecystitis. But so far as the medical management of cholelithiasis is concerned, it is not up to the mark in modern healing system. Although ursodiol or chenodiol in the form of oral bile acid pills, extracorporeal shock-wave lithotripsy (ESWL), contact dissolution therapy [injecting a solvent known as Methyl Tertiary-Butyl Ether (MTBE) into the gallbladder to dissolve the gallstones], Percutaneous Cholecystostomy are good non-surgical measures, their roles are either limited or these are not free from adverse effects. Obviously, there is an urgent need of help from Alternative therapy to counter these difficulties. This article is a step in the direction of making an availability of a safe and effective non surgical management of cholelithiasis to the ailing mankind.

KEYWORDS: Cholelithiasis, Cholecystectomy Pittashmari, Acute Cholecystitis.

INTRODUCTION:

Presence of stones in the gallbladder is referred to as cholelithiasis. The stones are formed when the concentrations of various constituents in the gall bladder are not in the desired proportions.

The composition of gallstones is affected by age, diet and ethnicity. [1] On the basis of their composition, gallstones can be divided into the following types: **Cholesterol stones**

Cholesterol stones vary from light yellow to dark green or brown or chalk white and are oval, usually solitary, between 2 and 3 cm long, each often having a tiny, dark, central spot. To be classified as such, they must be at least 80% cholesterol by weight (or 70%, according to the Japanese- classification system).[2]

Bilirubin stones

Bilirubin ("Pigment", "Black Pigment") stones are small, dark (often appearing black), and usually numerous. They are composed primarily of bilirubin (insoluble bilirubin pigment polymer) and calcium (calcium phosphate) salts that are found in bile. They contain less than 20% of cholesterol (or 30%, according to the Japanese-classification system).[2]

Mixed stones

Mixed ("Brown Pigment") stones typically contain 20–80% cholesterol (or 30–70%, according to the Japanese- classification system).[2] Other common constituents are calcium carbonate, palmitate phosphate, bilirubin and other bile pigments(calcium bilirubinate, calcium palmitate and calcium stearate). Because of their calcium content, they are often radiographically visible. They typically arise secondary to infection of the biliary tract which results in the release of β-glucuronidase (by injured hepatocytes and bacteria) which hydrolyzes bilirubin glucuronides and increases the amount of unconjugated bilirubin in bile.

A characteristic symptom of gallstones is a "gallstone attack", in which a person may experience intense pain in the upper-right side of the abdomen, often accompanied by nausea and vomiting, that steadily increases for approximately 30 minutes to several hours. A patient may also experience referred pain between the shoulder blades or below the right shoulder. These symptoms may resemble those of a "kidney stone attack". Often, attacks occur after a particularly fatty meal and almost always happen at night, and after drink.

Risk factors

Gallstone risk increases for females (especially before menopause) and for people near or above 40 years;[3] the condition is more prevalent among both North and South Americans and among those of European descent than among other ethnicities. A lack of melatonin could significantly contribute to gallbladder stones, as melatonin inhibits cholesterol secretion from the gallbladder, enhances the conversion of cholesterol to bile, and is an antioxidant, which is able to reduce oxidative stress to the gallbladder.[4]

Nutritional factors that may increase risk of gallstones include constipation; eating fewer meals per day; low intake of the nutrients folate, magnesium, calcium, and vitamin C;[5] and, at least for men, a high intake of carbohydrate, a high glycemic load, and high glycemic index diet.[6] Wine and whole-grained bread may decrease the risk of gallstones.[7]

Rapid weight loss increases risk of gallstones.[8]

Pigment gallstones are most commonly seen in the developing world. Risk factors for pigment stones include hemolytic anemias (such as sickle-cell disease andhereditary spherocytosis), cirrhosis, and biliary tract infections.[9] People with erythropoietic protoporphyria (EPP) are at increased risk to develop gallstones. Additionally, prolonged use of proton pump inhibitors has been shown to decrease gallbladder function, potentially leading to gallstone formation.[10]

Pathophysiology

Cholesterol gallstones develop when bile contains too much cholesterol and not enough bile salts. Besides a high concentration of cholesterol, two other factors are important in causing gallstones. The first is how often and how well the gallbladder contracts; incomplete and infrequent emptying of the gallbladder may cause the bile to become overconcentrated and contribute to gallstone formation. This can be caused by high resistance to the flow of bile out of the gallbladder due to the complicated internal geometry of the cystic duct.[11] The second factor is the presence of proteins in the liver and bile that either promote or inhibit cholesterol crystallization into gallstones. In addition, increased levels of the hormone estrogen, as a result of pregnancy or hormone therapy, or the use of combined (estrogen-containing) forms of hormonal contraception, may increase cholesterol levels in bile and also decrease

gallbladder movement, resulting in gallstone formation.

Medical Treatment

Cholesterol gallstones can sometimes be dissolved by oral ursodeoxycholic acid, but it may be necessary for the patient to take this medication for up to two years.[12] Gallstones may recur, however, once the drug is stopped. Obstruction of the common bile duct withgallstones can sometimes be relieved by endoscopic retrograde sphincterotomy (ERS) following endoscopic retrograde cholangiopancreatography (ERCP). Gallstones can be broken up using a procedure calledextracorporeal shock wave lithotripsy (often simply called "lithotripsy"),[12] which is a method of concentrating ultrasonic shock waves onto the stones to break them into tiny pieces. They are then passed safely in the feces. However, this form of treatment is suitable only when there is a small number of gallstones Surgical Treatment

Cholecystectomy (gallbladder removal) has a 99% chance of eliminating the recurrence of cholelithiasis. Surgery is only indicated in symptomatic patients. The lack of a gallbladder may have no negative consequences in many people. However, there is a portion of the population — between 10 and 15% — who develop a condition called postcholecystectomy syndrome[13] which may cause gastrointestinal distress and persistent pain in the upper-right abdomen, as well as a 10% risk of developing chronic diarrhea.[14]

There are two surgical options for cholecystectomy:

- Open cholecystectomy is performed via an abdominal incision (laparotomy) below the lower right ribs. Recovery typically requires 3–5 days of hospitalization, with a return to normal diet a week after release and to normal activity several weeks after release.[15]

- Laparoscopic cholecystectomy, introduced in the 1980s,[16] is performed via three to four small puncture holes for a camera and instruments. Post-operative care typically includes a same-day release or a one night hospital stay, followed by a few days of home rest and pain medication.[7] Laparoscopic cholecystectomy patients can, in general, resume normal diet and light activity a week after release, with some decreased energy level and minor residual pain continuing for a month or two. Studies

have shown that this procedure is as effective as the more invasive open cholecystectomy, provided the stones are accurately located by cholangiogram prior to the procedure so that they can all be removed.

CASE REPORT

A 60 year old male patient Admitted in Kayachikitsa IPD of Dhanvantri Hospital Ashta in December 2019 as a diagnosed case of Cholelithiasis with its full fledged signs and symptoms. As per the patient he had developed these symptoms in past 2 years. In an attempt to get rid of these problems he consulted many renowned Allopathic doctors, but owing to no improvement in the condition the patient was advised to undergo surgery. Very much reluctant to surgery, the patient visited our hospital for a conservative treatment.

AYURVEDIC 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 patient was switched on to following Ayurvedic medicines in this way- 1. Phaltrikadi Kwath-10 ml TDS

2. Arogyavardhinivati 500 mg TDS
3. Chandraprabhavati 250 mg TDS
4. Gokshuradi Guggulu 500 mg TDS
5. Praval Panchamrut 500 mg BD
6. Punarnava mandura- 250 mg BD

RESULTS

So far as subjective parameter is concerned, the patient started feeling better from the very beginning (i.e.15 days after the introduction of medicines).After 2 months of therapy he was advised to go for ultrasonography which was compared with that of

previous scan. The results obtained are as following;

Status of gall bladder before treatment (BT)(9/12/2019) Status of gall bladder After treatment (AT) (13/2/2020)

Partially distended wall thickness 4-5 mm Lumen shows an echogenic shadow

s/o stone 6 mm Size normal,wall thickness 3 mm,

lumen shows echogenic shadow, s/o stone 3.5 mm

DISCUSSION

According to Ayurveda, 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.

Cholelithiasis has been compared with Pittashmari. As the name suggests, Pittashmari borrows both Pittavardhaka and ashmari producing etiological factors in its causation. Therefore management of Pittashmari. Cholelithiasis should incorporate the medicines having properties to nullify both the factors.

Ingredients of Phaltrikadi Kwath , Punarnava mandura Arogyavardhini vati Gokshuradi Guggulu have Lekhana, Chhedana, Bhedana, Mootrala Bastishodhana, Anulomana,Deepana,Paachana, Vedanaasthaapana and Kaphashaamaka properties, so it is also helpful to reduce the size of Ashmari (stone).

Praval Panchamrut, chandraprabha vati have predominantly Pittashamaka property and thus these are responsible for inhibition of further stone formation

CONCLUSION

In this case study, the patient has shown encouraging results during the management of Cholelithiasis (Pittashmari). As per the USG-abdomen, the patient has got reduced G.B.Stone size from 6mm to 3.5mm within only 2 months of short duration by adopting Ayurvedic treatment. In addition, the general condition of the patient has also improved positively.

Therefore, on the basis of observations and results of this case study, it can be inferred that Ayurveda has the potential to treat cholelithiasis effectively and hence the sufferers must be advised to get benefitted from the Ayurvedic healing sciences and give active participation in national prosperity by leading enthusiastic and happy lives.

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