

# A Case Study on Cholelithiasis

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**Abstract-- Objective--** To describe the case about cholelithiasis.

**Clinical presentation and interventions--** A 45 year old female was visited tertiary care hospital with complain of right upper abdominal pain, nausea and vomiting .Her total bilirubin level was 3.5 mg/dl. The doctor advised hercholecystectomy.

**Conclusion--** Physicians were clinically diagnosed the condition as cholelithiasis based on laboratory investigation and abdominal ultrasound.

## 1 Introduction

In developing countries, gallstones are the major health issue. Gallstones diseases mostly occur in women as compare to men in overall population in world, and women are almost twice chances to develop gallstones rather than male. One of the most influence factors for developing gallstones is gender. Pregnancy also favors gallstones formation due to hormonal influences on bile composition. Increasing age is also influence on gallstones formation. In comparison between older and younger person, gallstones are 10 times more frequent in older than younger person. Obesity also triggers the formation of gall stones (Harish B, 2014).

Stones can be formed in any part of biliary tract, but when they formed in gallbladder, it is called cholilithiasis. Gall stones disease is multifactorial including aging, gender, dietary, high calorie intake, low fiber intake, high refined carbohydrates, hyper triglyceridaemia, physical inactivity, pregnancy and overweight. Additionally if women use oral contraceptives, gave birth three or more childrens and underwent full term pregnancies are greater risks for occurring of cholilithiasis. Consumption of vegetables or fruits decreases the chances of gallstones disease, while intake of spicy foods, fried foods increase the chances of gallstones disease (Bilal et al.,2017).

In symptomatic gallstones, the most common clinical manifestation including recurrent right upper quadrant pain, which is also called epigastric pain. It may be due to intake of fatty food and mostly occur at night time. And pain may be associate with nausea and vomiting and increases less pain to severe pain. Fever can be occurring in this condition due to infection. Other symptoms include jaundice which may present due to obstruction in bile (Al Saad et al.,2017).

There are three types of gall stones, mixed gallstones, pigment gallstones and cholesterol gall stones. The most common gallstones in adults are mixed gall stones, and in childrens pigment gall stones are more common. When bilirubin precipitates in the gall bladder its causes bilirubin stones which is known as cholesterol stones. Cholesterol gallstones contains, cholesterol, bilirubin compounds and plus calcium salts. Mixed gallstones are made up of cholesterol and pigment gallstones (Abdullah et al.,2015).

## 2 Case Report

A 45 year old female was admitted in surgery ward at tertiary care hospital with the chief complain of severe pain in right upper portion of abdomen, nausea, vomiting. She also reported the

history of jaundice for 2 months back and had taken the medicines for treatment. In HB report her HB was 10.6mg/dl.

Ten days earlier she visited to Tertiary care hospital, the patient visited the primary care hospital with similar complaints no treatment was started immediately and physician advised the patient to undergo clinical laboratory including blood test, complete blood count, LFTs, (Liver Function Test), abdominal ultrasound. After evaluating the report the physician diagnose the Cholelithiasis .but they have no facility to operate so they referred patient to tertiary care hospital.

On reporting in tertiary care hospital with the persistent symptoms same lab investigation were advised by the physician. The results were shown table 1. The physician diagnosed the condition as Cholelithiasis.

**Table #1: Abdominal pelvic ultrasound report**

Liver	14.1cm/normal in size, no focal lesion seen. Heptao- biliary channels not dilated. Portal vein normal.
Gallbladder	A Calculi measuring (15mm) seen at Gallbladder neck
Pancreas	Partially visualized, Normal
Spleen	9.1cm,not enlarged
Kidneys	Bilaterally normal in size ,shape and smooth outer surface no stone or hydro-nephrosis seen on either side
Urinary bladder	Partially filled ,normal , No abdomino-pelvic ascites

## 3 Discussion

Gallstones are most prevalent gastrointestinal disorder which is prevalent 10% to 15% of adults in developing countries. This condition may be asymptomatic but sometimes it becomes symptomatic and it needs current treatment including surgical treatment (MujibulHaq, Giassudin, Jhuma, Choudhury, 2016).

Here in this case patient observed the symptoms of acute pain in right upper abdominal region, feeling of nausea and vomiting. For the evaluation of gallstones related disease, the diagnostic criteria consisting of complete physical examination, laboratory evaluation and imaging of right upper quadrant and then cholecystectomy advised to the patient. Reports of abdominal ultrasound and liver function test reveal the evidence of gallstones disease. In pelvic abdominal ultrasound spleen, liver, pancreas, kidneys and urinary bladder seen normal but in Gallbladder calculi of 15mm were seen. Which caused the right upper abdominal pain, nausea and vomiting. And in liver function test report the total bilirubin level was raised at 3.5mg/dl.

In gastroenterology diseases, cholelithiasis is one of most common disease. To diagnose the cholelithiasis history taking from client or physical examination is performed. Other investigations include blood reports, ultrasonography, abdominal x-ray, CT scan and ERCP. After confirmation of cholelithiasis client may be recommended for cholecystectomy or Laparoscopy (Tazuma et al., 2016).

On the other hand patient verbalization of pain in epigastric region or right hypochondriac region with nausea and vomiting increases the successptibility towards the cholelithiasis. These are the only symptoms which significantly associated with gallstones disease. Dyspeptic symptoms are also present in this condition. The presence of these symptoms indicates the progression of silent gallstones towards symptomatic gallstones, and surgical treatment is advised in these patients (Festi et al.,2008).

Laparoscopic cholecystectomy is the worldwide “gold standard” treatment in cholelithiasis. In 1987 laparoscopic cholecystectomy was established. LC can be done either by early or delayed approach. Early laparoscopy has advantages including less cost, short hospital stay and prevention from open cholecystectomy by which greater chances of morbidity rate (Abbas S,Raza K.,2016).

#### 4 Conclusion

In this case physician diagnosed the patient with cholelithiasis on the basis of abdominal pelvic ultrasound in which calculi were seen in gallbladder.

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