

Asymptomatic Cholelithiasis - Case Study

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Abstract: *Asymptomatic Cholelithiasis is a condition without showing symptoms this may affect the patient. This is a most common condition nowadays. This paper present about the patient with asymptomatic cholelithiasis. The patient health condition, chief complaints, investigations like lab investigations, Ultrasound abdomen and by X-Ray the patient was diagnosed as asymptomatic cholelithiasis. The patient was treated with medications; no surgery was planned for the patient.*

Keywords: Asymptomatic cholelithiasis, gallstones, conservative management, clinical diagnosis, ultrasound findings

1. Introduction

Asymptomatic cholelithiasis is the presence of gallstones in the gallbladder without any symptoms. This condition is often discovered incidentally during an ultrasound for other reasons. While most people with asymptomatic gallstones never develop symptoms or serious complications, a small percentage may experience symptoms or complications (like biliary colic, cholecystitis, pancreatitis, or bile duct obstruction) over time. In most cases, the standard treatment is observation, not surgery, but surgery may be considered for certain high-risk individuals.

Definition: Gallstones are present, but there is no history of gallstone-related pain (biliary colic) or other gallstone complications.

Commonality: It is a very common condition, and its prevalence is increasing, partly due to more frequent use of ultrasounds.

Incidental discovery: The condition is often found by chance when a patient has an ultrasound for other, often unrelated, issues.

2. Causes

Causes related to bile composition

- **Excess cholesterol:** This is the most common cause of gallstones. When there is too much cholesterol in the bile, it can crystallize and form stones. Risk factors include obesity, diets high in fat and sugar, rapid weight loss, and certain medical conditions.
- **Excess bilirubin:** Pigment gallstones form when there is too much bilirubin in the bile. This can be caused by liver damage or blood disorders, such as chronic haemolytic conditions like sickle cell anaemia.
- **Insufficient bile salts:** Gallstones can form when the bile doesn't have enough bile salts to keep cholesterol dissolved.

Causes related to gallbladder function

- **Incomplete emptying:** When the gallbladder doesn't contract and empty its contents completely or often enough, the bile can become too concentrated, leading to the formation of stones.
- **Bile stasis:** This is a state of slow-moving bile. It can be caused by factors like certain medications or prolonged

fasting, allowing components in the bile to precipitate and form gallstones.

Risk factors

- **Lifestyle:** Obesity, sedentary lifestyle, and rapid weight loss are significant risk factors.
- **Genetics:** A family history of gallstones increases your risk. Certain ethnicities, such as Native Americans and those of Mexican descent, are also more prone.
- **Age and sex:** The risk of gallstones increases with age. Being female is a major risk factor, especially for women who are pregnant or taking oestrogen-based birth control or hormone therapy.
- **Medical conditions:** Having diabetes, liver disease, or Crohn's disease increases your risk.
- **Pregnancy:** Hormonal changes and decreased gallbladder contraction during pregnancy can increase the risk of developing gallstones.

Symptoms of symptomatic gallstone disease, which are absent in asymptomatic cholelithiasis, include:

- Sudden and intense pain in the upper right portion or center of the abdomen.
- Pain that may radiate to the right shoulder or back.
- Nausea and vomiting.
- Fever and chills (indicating inflammation or infection like cholecystitis or cholangitis).
- Yellowing of the skin and eyes (jaundice), dark urine, or pale stools (if the common bile duct is blocked).

Natural course and risk of complications

- **Low risk of progression:** For most people, the risk of developing symptoms or complications is low.
- **Annual risk:** The likelihood of developing symptoms is about 1–2% per year.
- **Complications:** Complications are rare and typically occur only after a person has experienced at least one episode of biliary colic. These complications can include acute cholecystitis, choledocholithiasis (stone in the common bile duct), or pancreatitis.
- **Misattribution of symptoms:** Vague, non-specific symptoms like bloating or dyspepsia are often incorrectly attributed to gallstones when they are caused by other conditions like irritable bowel syndrome or gastroesophageal reflux disease.

Treatment

- **Expectant management:** For the majority of people, the recommended treatment is to simply monitor the condition without surgical intervention.
- **Prophylactic surgery (Cholecystectomy):** Surgery is typically reserved for patients who develop symptomatic gallstones. However, prophylactic removal of the gallbladder (cholecystectomy) is sometimes considered for a select group of high-risk patients, such as those with large gallstones, a calcified gallbladder (porcelain gallbladder), or gallstones alongside certain other risk factors like sickle cell anaemia or gallbladder polyps

Case Study of Mrs.X

Mrs X, 65 years old female presented with complaints of right upper limb swelling for 2 days, H/O chills, fever, breathing difficulty, H/O abdominal distension, H/O giddiness. Known to have systemic hypertension, dyslipidaemia on regular medication.

Clinical Observation

Mrs X had fever, abdominal distension, giddiness, breathing difficulty and right upper limb swelling. Patient was anxious about her condition and looks tired and weakness. Patient was cooperative for the treatment measures. Initial assessment done, vital signs monitored, provided comfortable position and safety measures.

Other Examination: Patient conscious, oriented, Afebrile**Vital Signs**

Temperature -99°F

Pulse – 90 beats /minute

Respiration -22 breaths/minute

Blood Pressure -120/70 mmHg

Spo2 -94 %

Investigations**Lab Reports****Complete Blood Count**

WBC -10,300/CUMM

Neutrophils -64.2%

Lymphocytes -31.2 %

Monocytes -2.7 %

Eosinophils -1.6 %

Hemoglobin -13g/dl

Platelet -3, 44,000/cumm

Random blood glucose -141mg/ dl

Blood urea -11mg/dl

HDL Cholesterol -62mg/ dl

LDL -Cholesterol -65mg/ dl

VLDL Cholesterol -20mg/dl

Liver Function Test

SGOT -21u/L

Alkaline phosphatase -77u/L

Total protein -7.3g/dl

Serum albumin -4.1g/dl

Serum globulin -3.2g/dl

A/G ratio -1.3 ratio

Total bilirubin -1.4mg/dl

Direct bilirubin -0.4mg/dl

Indirect bilirubin -1.0mg/dl

Urine Routine

Albumin –Nil

Sugar –Trace

Urine Micro: RBC –nil

WBC -3-4 cells per microliter

Epithelial cells 0-1

Dengue –Negative

X-Ray Chest –Bronchitis**USC Abdomen – Asymptomatic Cholelithiasis****Surgery/ Procedure Done –Nil****Management****Recommendations**

Tab –Amoxicillin + Clavulanate Pot -625mg twice a day after food for 6 days

Tab –Pantoprazole Sodium+ Domperidone once before food for 10 days

Tab Betahistine Hydrochloride (Vertin) -16MG Twice a day after food for 7 days

Syp Sucrafil 10 ml twice a day after food, 1 bottle

Continue the Regular Medication till the next review

Tab –Clinidipine & Telmisartan -10 mg twice a day after food

Tab –Atorvastatin – 5mg once at night after food

Tab Ursodeoxycholic Acid -150 mg twice a day after food

Formonide -200mcg inhaler 2 puffs twice a day

3. Complication

Complications: Complications are rare and typically occur only after a person has experienced at least one episode of biliary colic. These complications can include acute cholecystitis, choledocholithiasis (stone in the common bile duct), or pancreatitis.

Nursing Process for Patient with Asymptomatic Cholelithiasis

- History taking
- Physical examination- Palpation
- Assess the abdomen for tenderness
- Check the vital signs
- Health record and health review

Nursing Diagnosis:

- Acute pain related to asymptomatic cholelithiasis as evidenced by facial grimace.
- Fluid and electrolyte imbalance related to lack of fluid intake as evidenced by giddiness.
- Anxiety related to disease condition as evidenced by more worry about the prognosis
- Knowledge deficit related to lack of information about the treatment of disease condition as evidenced by asking frequent questions.

Planning

- Monitor the vital signs
- Provide comfortable bed and position
- Maintain Intake and output chart
- Provide good ventilation
- Clear the patient doubts about the prognosis
- Advice the mother to take more liquids
- Provide health education

Implementation

- Monitored the vital signs
- Provided comfortable position
- Provided tepid sponge
- Maintained Intake and Output chart
- Provided good ventilation
- Cleared the patients doubts
- Patient is taking adequate amount of liquids
- Provided health education

Evaluation

- Patients Body temperature is reduced
- Patient got relieve from pain
- Patient general condition was improved
- Patient feels comfort now

4. Conclusion

Asymptomatic cholelithiasis is a condition must be diagnosed early and that has to be treated early. Patient had abdominal distension, abdominal discomfort, and giddiness, fever etc. All the investigations done like Blood tests, Ultra sound abdomen and X-ray had done. After that patient got diagnosed as Asymptomatic cholelithoiasis and treatment had been given. After that patient got discharged with improved health condition.

References

- [1] Suresh K Sharma, S. Madhavi, 2018, Brunner and Suddarths, "Textbook of Medical Surgical Nursing" South Asian Edition, Volume –I. Page No: 991 -998
- [2] Lewis, Adult health Nursing II with integrated Pathophysiology, Volume -2, Page No-1023- 1028.
- [3] Cholecystectomy for asymptomatic gallstones: Markov decision tree analysis
Brian Juin Hsien Lee ¹, Qai Ven Yap ², Jee Keem Low ³, Yiong Huak Chan ⁴, Vishal G Shelat ⁵
- [4] Surgical Treatment for Asymptomatic Cholelithiasis, MARTHA ILLIGE, MD, AND ANDREW MEYER, MD, University of Colorado at Rose Medical Center Family Medicine Residency, Denver, Colorado. 2014; 89(6):468-470
- [5] Journals.lww.com/sjga/fulltext/2007/13020/asymptom
atic gallstone
<https://pubmed.ncbi.nlm.nih.gov/17390223/>