

CASE REPORT

CHOLECYSTECTOMY FOR GALL STONES IN 26 MONTHS OLD CHILD

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Cholelithiasis is a major cause of morbidity worldwide. The incidence of gall stone in children in Pakistan has not been sufficiently studied and is increasingly being detected: the reason may be a true rise in the incidence or an improvement in diagnosis due to liberal use of diagnostic facilities and thus the increased opportunity to detect disease. A healthy 2 years and 2 months old male child presented to outpatient with history of recurrent attacks of pain abdomen and anorexia. Ultrasonography showed a 0.6 mm stone, inflammation and pericholecystic fluid. Open cholecystectomy was performed under general anaesthesia. A distended gall bladder with multiple very small calculi was removed. Post-operative stay was uneventful and patient was allowed oral feeds after 24 hours.

Keywords: Acute Cholecystitis; Paediatric Cholelithiasis; Cholecystectomy

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INTRODUCTION

Cholecystitis refers to the inflammation of gall bladder; acute or chronic, either of which may or may not be due to gall stone. Formation of stones within the gall bladder is termed as cholelithiasis.¹ Incidence of cholecystitis in paediatric age group is reported to be less than 1-4%.² Acute cholecystitis is most commonly caused by gallstones which may remain silent for long period of time in up to 80% of patients while only up to 3% of patients become symptomatic, presenting with pain right hypochondrium and epigastrium associated with nausea, vomiting and fever.^{1,3} Ultrasonography is an effective diagnostic tool.⁴ Gallstone disease is much rarer in children and infants, with 1.3 paediatric cases occurring for every 1000 adult cases, paediatric patients represent around 4% of all cholecystectomies.^{5,6}

CASE REPORT

A healthy 26 months old male child presented to our outpatient department with abdominal pain, anorexia and low-grade fever. The pain aggravated after consumption of food which led to loss of appetite. There was no associated history of bleeding, pruritis and icterus. This occurred 3-4 times in 6 months. Past history revealed worm infestations and use of deworming agents. There was no positive family history of gall stones.

General physical examination was unremarkable except mild jaundice. Patient was afebrile and vital signs were within normal limits. Abdominal examination demonstrated right hypochondrium and epigastric tenderness, no mass, negative Murphy's sign and no rebound tenderness.

Routine laboratory investigations were normal. Serial ultrasound reports were confusing, initial ultrasonography report showed sub-hepatic abscess measuring 3×2.5 cm and appendicitis as shown in figure-1, second showed normal gall bladder wall thickness with 6mm stone and sub hepatic fluid collection as shown in figure-2, third reported it as 5 mm gall stone with thick walled calcified cyst in right lobe of liver as suspicion of liver abscess shown in figure-3.

Based on clinical, lab and radiological findings, a diagnosis of Acute Cholecystitis secondary to cholelithiasis was made.

After appropriate pre-op investigations and discussion with paediatrics and anaesthetist team, this child underwent open cholecystectomy and removal of appendix from sub hepatic region on February 18, 2017 figure-4. After removal, gross examination revealed distended gall bladder with 6 mm calculus and sludge which showed changes in assent with the above findings. Histological report of appendix revealed acute appendicitis while that of gall bladder showed chronic cholecystitis with autolytic changes. Post-op stay was uneventful and patient allowed oral feeds after 24hrs.



Figure-1: Sub-hepatic abscess measuring 3×2.5 cm

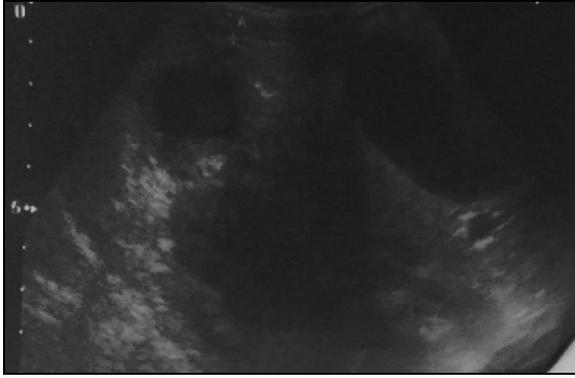


Figure-2: 6 mm gall stone with sub hepatic Cyst in right lobe of liver.

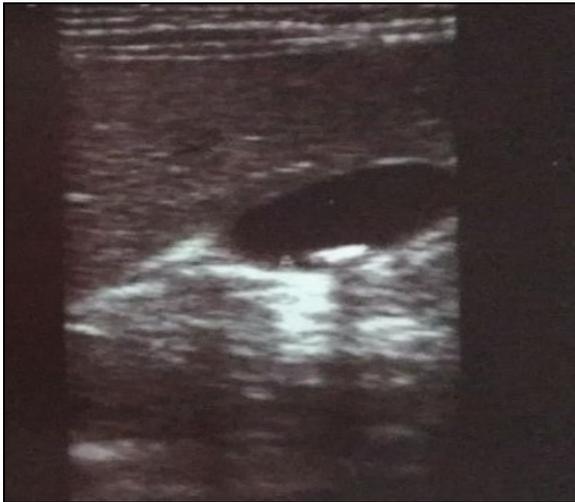


Figure-3: 5 mm gall stone with thick walled calcified fluid collection



Figure-4: Open cholecystectomy

DISCUSSION

The prevalence of gallstones is increasing day by day in Pakistani population due to frequent use of ultrasonography.⁷ The incidence of gall stone in children in Pakistan has not been sufficiently studied. According to a study conducted by Alina

Saqib *et al*, the prevalence of gallstones in age 15–24 years is 11.60%.⁸ According to studies, in developed countries cholesterol gall stones predominate while Asians develop brown stones associated with biliary infection and parasites and that too in obese children and adolescents.^{9,10} In contrast to adult gallstone disease there is a male predominance among children aged less than 10 years.¹¹ As this patient did not have any bleeding tendency or family history of bleeding disorder or gallstones in early childhood, so the exact pathogenesis cannot be outlined.

A thorough review of literature shows a 2 years old child who underwent cholecystectomy for idiopathic gallstones in India.¹² Three other cases of cholecystectomy have also been reported in children aged less than 2 years.^{13–15} Otherwise we didn't find any case operated in such a young age.

The standard treatment for symptomatic cholelithiasis is cholecystectomy. Although children can be managed expectantly in hope of spontaneous resolution but researches show that 2–12 years age group have slight chance of unprompted resolution and will need surgical intervention at some point.¹⁶ Cholecystectomy is recommended in children with typical biliary symptoms and prophylactic in children with haematological disorder.¹⁷

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