

CASE REPORT**Symptomatic Cholelithiasis and Cholecystectomy for a 9-Month-Old Infant: A Case Report****Hailu Wondimu*****OPEN ACCESS**

Citation: Hailu Wondimu. Symptomatic Cholelithiasis and Cholecystectomy for a 9-Month-Old Infant: A Case Report. *Ethiop J Health Sci* 2017;27(3):305. doi:<http://dx.doi.org/10.4314/ejhs.v27i3.13>

Received: May 5, 2016

Accepted: December 21, 2016

Published: March 1, 2017

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Funding: Nil

Competing Interests: The authors declare that this manuscript was approved by all authors in its form and that no competing interest exists.

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ABSTRACT

BACKGROUND: Symptomatic cholelithiasis is rare in children. Thus, a high degree of suspicion is required for diagnosis. Once a child is diagnosed with symptomatic cholelithiasis, cholecystectomy is required to relieve the symptoms and prevent complication.

CASE DETAILS: A 9-month-old infant from Addis Ababa presented to the Pediatric Department of Zewditu Memorial Hospital on January 30, 2015 with irritability, abdominal pain. On workup, she was found to have gall stones, and her condition was at last attributed to biliary colic after months of follow-up in the Department of Pediatrics. She underwent cholecystectomy on the 31st of July 2015 and discharged with improved results. This is the first report of symptomatic cholelithiasis and cholecystectomy in Ethiopia at 9 months of age.

CONCLUSION: Cholelithiasis is rare in infants, and one should have a high index of suspicion for diagnosis. Cholecystectomy should be done as in adults if symptomatic

KEYWORDS: Infant, symptomatic, cholelithiasis, cholecystectomy

INTRODUCTION

Cholelithiasis is the presence of gall stones in the gall bladder. Patients with uncomplicated gallstone disease typically present with biliary colic which is of an intense, dull discomfort located in the right upper quadrant, epigastrium, or (less often) sub-sternal area that may radiate to the back (particularly the right shoulder blade)(1). Age is a major risk factor for gallstones. Gallstones are exceedingly rare in children except in the presence of hemolytic states representing around than 1% of all cases (1).

Children with Cholelithiasis may present with colicky pain and jaundice, but most are asymptomatic (2). Predisposing conditions for Cholelithiasis in children include phototherapy during neonatal period, parenteral hyperalimentation, prior ileal resection, hemolytic disorders and biliary tract abnormalities (3). Cholecystectomy, preferably laparoscopic, is recommended in symptomatic cases(4).

CASE PRESENTATION

A 9-month-old infant presented with irritability, colicky abdominal pain of 5 months [since the age 4 months], and was followed up in the Department of Pediatrics of Zewditu Memorial Hospital. She was crying intensely and periodically curled her legs up.

Her symptoms were attributed to on various occasions. Among differentials considered were gastroenteritis, urinary tract infection and even acute abdomen due to intussusception and were given various medications.

She was born at term with a birth weight of 2000grams. She was the 3rd child for the family. There was no history of jaundice or phototherapy. There was no known gallstone disease hereditary condition in the family or immediate relatives. There were no history of admissions to a hospital and injections prior to her follow-up in Zewditu Memorial Hospital.

On Physical examination, she was sick looking but in no form of cardiorespiratory distress, weighing 6 kg and having a height of 67 cm, that made her weight for length on 0.1 percentile [underweight]. The only pertinent abnormal finding was slight pallor, and there were no tenderness or mass on the abdominal examination.

Investigations Showed anemia with Hypochromic, anisocytotic and macrocytic RBCs dominating peripheral smear, but reticulocyte count was normal [1.2%]. The blood groups of the infant and the mother were AB positive and A positive respectively. Urine analysis revealed WBCs, but culture did not yield bacteria.

Ultrasound examination done on four occasions since the age of 4 all showed cholelithiasis. However, there was no evidence of cholecystitis or common bile duct stone.

After thorough evaluation and interdepartmental discussion symptomatic cholelithiasis was diagnosed and cholecystectomy done. Then, the patient was discharged with no complication. On her first follow-up, the mother claims that the infant started sleeping well with no irritability after surgery.



Figure 1: Gallstones found in the gall bladder of a 9-month-old female infant

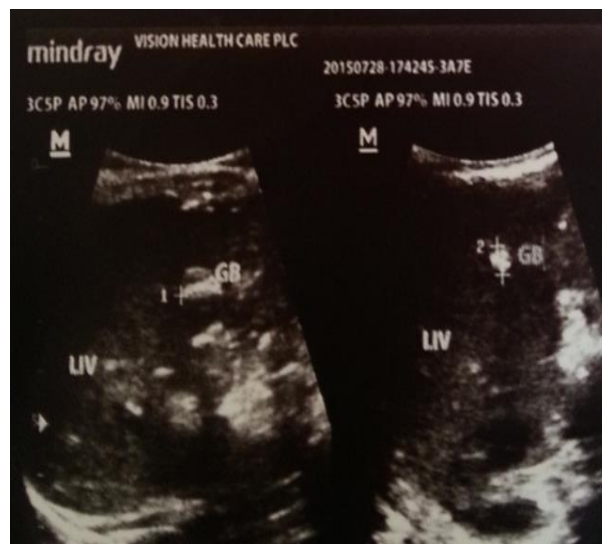


Figure 2: Ultrasound demonstrating gallstones in a 9-month-old female infant

DISCUSSION

Gallstones constitute a significant health problem in developed societies, affecting 10% to 15% of the adult population. The prevalence in sub-Saharan Africa is estimated to be less than 5%. The majority [up to 80%] will not develop symptoms of cholelithiasis nor develop complications such as acute cholecystitis, cholangitis, or pancreatitis etc.(5).

The female gender has a most compelling association with gallstone disease, especially

during the fertile years. Women are almost twice as likely as men to form stones. The gap narrows following menopause after which men begin to catch up (5).

Cholelithiasis is uncommon in children (5). In unselected pediatric populations, the prevalence rates are reported between 0.1% to 1.0%. One explanation for this increase is greater access to and use of abdominal ultrasonography in children. Nearly 40% to 51% of children with gallstones are asymptomatic (6). These shows that children are more likely to be symptomatic than adults (7). Studies had shown that the prevalence is much higher in children with risk factors such as hemolytic disorders, biliary tract abnormality, parenteral nutrition, obesity, etc. Studies in Sudan and Ghana have shown a very higher prevalence of children with sickle cell disease (8,9)

Cholelithiasis is uncommon in infants although it has even been reported in the fetus. Increasing numbers are reported in recent years mainly due to increasing use of ultrasonography. In a series of 13 cases of cholelithiasis in infants, St-Vil, et al. have reported that 11 were asymptomatic and detected by US done for unrelated problems (10). In another series of 40 cases of cholelithiasis in infancy, Debray, et al. have shown that 6 had isolated gallstones and were asymptomatic whereas 34 had either bile duct obstruction or had other symptoms (11).

This patient had a low birth weight and anemia both of these were observed more in infants with cholelithiasis. A high degree of suspicion and ultrasonography is needed for diagnosis as infants are unlikely to localize their symptoms (12). Cholecystectomy is the recommended treatment of children with symptoms (13).

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