

## Gall Bladder Stone in Neonate with Hemophilia A: Case Report

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**Abstract:** gall bladder stone is a rare finding in children. This report on the male infant who complained of vomiting since the first day of his life while he was on exclusive breastfeeding, also it is the first case reported in Benghazi medical center in Libya. It diagnosed by USS. With use of diagnostic USS, neonatal cholelithiasis may more common than previously suspected.

**Keywords:** Gallbladder stone, Infant, Cholelithiasis, USS.

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### I. Introduction

Cholelithiasis is a rare finding in children, even though recent series show increased detection of this disease with the increased use of abdominal ultrasonography (USS) [1].

More cases of cholelithiasis are being discovered even at neonatal age group. The widest series was reported by Brown and colleagues, who detected echogenic foci in 25 fetus' gallbladder [2].

This report was the first case report from Benghazi Medical Centre for gall bladder stone in a neonate with hemophilia A. This case presented as a case of hemophilia with gastro-esophageal reflux; the patient had gall bladder stone which was discovered and diagnosed by USS.

### II. Case Presentation

Full-term male infant delivered vaginally with birth weight 3.2kg; his mother age 24 years. His parents are first cousin parent. His mother is a carrier to hemophilia A and his father has hemophilia A; both parents have no other medical problem like gall bladder disease nor hemolytic disease. His mother had no medical complication during pregnancy and received only folic acid and her denial ingestion of flaxseed. This patient screened for hemophilia and factor VIII level was 2% in favor of moderate hemophilia A. He also complained from vomiting since the first day of his life; although, he was on exclusive breastfeeding. The vomiting was with each feed sometimes with a large amount. Moreover, the patient was irritability and excessive crying.

His mother sought medical advice and the doctors reassure her as the baby was well not dehydrated and gained weight normally. At day 7 of age, his mother noted that he had jaundice. Total bilirubin was 14.5 mg/dl mainly indirect 14.2 mg/dl CBC done normal WBC  $9.7 \times 10^3$  / $\mu$ l, HGB 15g/dl, PLT  $271 \times 10^3$  / $\mu$ l. His mother blood group is 'O' positive and baby blood group is 'A' positive. At day 14 of age, S. bilirubin repeated was 12 mg/dl mainly indirect; thus advised to do thyroid function test, urine routine and culture peripheral blood film, liver, and renal function test and all were normal.

At 20 days of age, USS abdomen was done which reveal gall bladder stone peripheral blood film with reticulocyte. Moreover, direct combs test, Hb electrophoresis, and osmotic fragility were done and all were normal. At the age of 2months, contrast swallow study was done for vomiting and the study was suggestive for gastro esophageal reflux grade IV. Medical treatment for gastro esophageal reflux started and the patient still complains of irritability and vomiting. At the age of 3 months, ursodeoxycholic acid was started, and the gastro esophageal symptoms showed slight improvement and the patient kept on close follow. At the age of 7 months, USS was done, and the result was normal. His age now two and a half years and his follow up USS abdomen is normal and he is thriving well.

### III. Discussion

The prevalence of neonatal gallstone was variable in different studies, ranging from 0.13% to 1.9%. [3-6] and this is the first case reported in Benghazi Medical Center. Cholelithiasis is relatively rare in otherwise healthy children, and it more commonly occurs in patients with a variety of predisposing disorders such as

hematologic disorders, prematurity, prolonged fasting, parenteral nutrition, ileal resection, dehydration, phototherapy, and congenital abnormalities of the biliary tract, E. coli sepsis, furosemide therapy, and pseudohypoaldosteronism [7-9].

In this case, all these risk factors were absent apart from ABO as the mother blood group is O positive, baby blood group is A positive, and ABO incompatibility predisposes to fetal cholelithiasis [10-13].

His mother denied ingestion of flaxseed as it is believed that anabolic activity of its phytoestrogen content may, increase stone formation in the gallbladder due to its estrogenic activity [14]. Calculi usually develop in the gall bladder itself but their etiology is still uncertain [15].

This is the first case of hemophilia and gastro-esophageal reflux associated with a gall bladder stone. In our patient, we start ursodeoxycholic and gall bladder stone disappears at the age of 7 months. While some authors suggested medical therapy such as ursodeoxycholic acid [16]. And others recommend close observation on asymptomatic cases [7, 17]. Neonatal gallstone appears to be a temporary, self-limiting phenomenon, which does not warrant an aggressive approach. It seems in most of the reported cases that observation and follow-up sonograms are the only objective requirements to perform, but in our case due to vomiting and severe attack of colicky abdominal pain ursodeoxycholic started.

#### IV. Conclusion

Despite its relative rarity in infant, cholelithiasis diagnosis with a childhood complaint of postprandial abdominal pain. The USS is helpful in the diagnosis of Gallbladder stone.

Ursodeoxycholic is the appropriate treatment for symptomatic gallbladder stone in an Infant with hemophilia A; noticeable improvement in the case was observed.

#### Patient Consent

Written informed consent was obtained from the patient's parent for publication of this manuscript and any accompanying

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