

CASE REPORT

Intrahepatic Gallbladder: A Case Report

Muhammad Imran Ibrahim¹, Mahrukh Saim¹, Rehman Ali Khan¹, Rashid Mehmood², Rabeea Hasan¹

ABSTRACT

Ectopic gallbladder is a rare congenital anomaly with total recorded incidence of 0.1 – 0.7 %.¹⁻² Multiple ectopic locations of the gallbladder have been described in the medical literature and the second commonest site is intrahepatic location.³ It is associated with increased risk of several gallbladder pathologies and possible misinterpretations in their diagnosis due to unusual location may delay initiation of the treatment or may pose risk during the surgery. Therefore, prompt diagnosis is of utmost importance particularly in surgical setting.⁴ In this case report we present a 13-year-old girl who was lingering with on and off vague abdominal pain for many months before she was diagnosed with this rare anomaly.

Key Words: *Cholelithiasis, Cholecystitis, Cholangiocarcinoma, Gallbladder Ectopias, Intrahepatic Gallbladder, MRCP.*

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Introduction

Intrahepatic gall bladders may be completely or partially embedded in the hepatic parenchyma or may be found in the subcapsular location. Pathology seems to result from migrational arrest hampering the gallbladder from attaining its normal extrahepatic location during the fetal period. Consequently, incomplete emptying and bile stasis is a risk factor for multiple gallbladder pathologies such as cholelithiasis, cholecystitis as well as hepatic pathologies like hepatic abscess and cholangiocarcinoma. Thereby, necessitating prompt diagnosis by the radiologist and affective communication of this information with the surgeon for better surgical planning.⁵

Case Report

A 13-year-old girl reported for USG abdomen. She was a known case of Developmental dysplasia of Hip

and had history of occasional episodes of vomiting and anorexia since last 4 years of age with associated high bilirubin levels (total bilirubin: 35-45umol/l) noted on various accounts. No history of fever or localized right inferior fossa pain was given. Careful scanning with transabdominal ultrasound raised suspicion of ectopic location of gallbladder with part of it seen embedded within the hepatic parenchyma showing multiple internal septations. In addition, multiple simple renal cortical cysts were also noted bilaterally. No evidence of cholelithiasis or cholecystitis was noted at the time of scan. CBD was normal in calibre. To confirm the location of gallbladder, MRCP was further advised, which was in keeping with USG findings, confirming partial intrahepatic gallbladder with intrahepatic part showing multiple internal septations. No calculus, pericholecystic fluid or wall thickening was noted on MRCP either.

Discussion

The normal position of the gallbladder is beneath right lobe of liver in the interlobar plane.⁶ Incidence of ectopic location of the gallbladder is overall rare however the commonest ectopic locations are beneath the left lobe of the liver, transversely positioned, intrahepatic, retro placed or in the retroperitoneal space. Other rare ectopic locations include the falciform ligament, lesser omentum, retroduodenal area, in abdominal wall musculature

¹Department of Radiology

Combined Military Hospital (CMH), Rawalpindi

²Department of Radiology

Combined Military Hospital (CMH), Sialkot

Correspondence:

Muhammad Imran Ibrahim

Consultant Radiologist

Department of Radiology

Combined Military Hospital (CMH), Rawalpindi

E-mail: muhammad.imran.ibrahim@gmail.com

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and in the thorax.⁷

It is postulated that intrahepatic arrest of gallbladder usually results from failure of its migration to the normal extrahepatic location between left and right lobes of liver during the 2nd month of gestation.⁸

During embryological development, gall bladder normally descends to extra-hepatic position in late half of the second trimester. Most of the ectopic gall bladder are partially intra-hepatic and most of these patients have cholestasis.⁹ Intrahepatic location poses restriction of normal contractility which increases the risk of the bile stasis and further leading to stone formation. The patients with intrahepatic gallbladders are at 60% increased risk of developing gallbladder calculi.¹⁰

Most of the ectopic locations of the gall bladder and especially the intrahepatic location can be easily identified on ultrasonography, but MRCP is considered the gold standard imaging modality for all the biliary tract anomalies.¹¹

Considering the rarity of its incidence and the unusual location, the intrahepatic gallbladders may pose a diagnostic challenge and may complicate surgical interventions. Thus, making it mandatory for the surgeon to know the ectopic location beforehand to avoid any intraoperative mishaps.



Fig 1: Transabdominal USG image showing partial intrahepatic Gallbladder. Few internal septations can be seen in the intrahepatic part

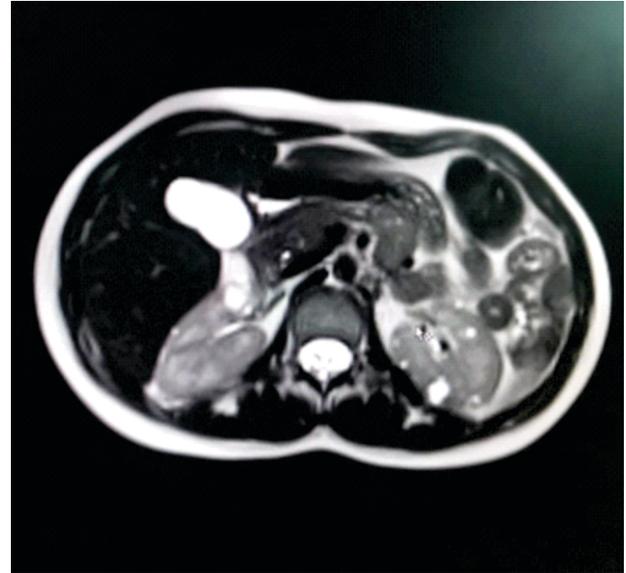


Fig 2: T2WS MRCP Axial image showing partial intrahepatic Gallbladder



Fig 3: T2WS MRCP Coronal image demonstrating partial intrahepatic Gallbladder

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