Phrygian Cap Gall Bladder: A Rare Entity

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ABSTRACT

Folding of gall bladder is the most common congenital abnormality of biliary tract. From developmental aspect it can be taken as part of congenital septum which did not develop. This type of gall bladder can produce symptoms if the connection between two cavities is narrow impeding the flow of bile between them. Herein we report a case of 40-year old patient who presented with pain in right hypochondrium and ultrasound showed presence of calculi. Patient underwent cholecystectomy. Appearance of gall bladder resembled that of Phrygian cap.

Key words *Gall bladder abnormalities, Cholecystectomy, Congenital anomaly, Phrygian cap.*

INTRODUCTION:

Phrygian cap gall bladder was first described in 1935. The name is given because of similarity of gall bladder with bonnet worn by ancient Phrygians who used to live in Asia minor.[1] The cap is conical and the top is pulled forward. Embryologically it represents a part of congenital septum which did not develop in its entirety. On radioneuclotide scan it can be diagnosed if the size of gall bladder appears too small than the size of gall bladder fossa. The filling of gall bladder takes long. Ultrasound can also help in diagnosis if the characteristic appearance is found.[2] It has no pathological significance nor it causes any symptoms. However, it might be mistaken for a mass during routine images and sometimes may mimic a pathology. Cholecystectomy for Phrygian cap is only indicated in case of symptoms.[3] We report a patient presenting with right hypochondrium pain off and on, who underwent open cholecystectomy.

CASE REPORT:

A 40-years old female patient visited outpatient department with one day history of pain right hypochondrium and vomiting. On examination she was afebrile. Right hypochondrium was tender on palpation. Baseline routine investigations like total leucocyte count and liver function test were within normal range. Ultrasound showed multiple stones in the gall bladder. Gall bladder wall thickness was normal with no pericholecystic fluid. Patient underwent elective open cholecystectomy. At operation a Phrygian cap gall bladder was found (Fig-I). Gall bladder specimen was sent for histopathology. Patient was discharged after two days.

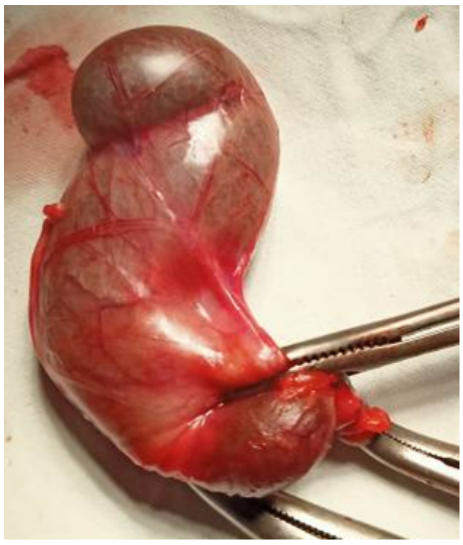

Fig I: Phrygian cap gall bladder removed

DISCUSSION:

Gall bladder is a pear shaped organ. It is about 7-cm long and 3-cm wide. Many gall bladder anomalies are reported since the advent of cholecystectomy.[4] These anomalies relates to number, shape and location. Gall bladder arises as a ventral bud from distal part of foregut.[5] Folding of the fundus of gall

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bladder during embryologic life may results in appearance resembling Phrygian cap which has a specific shape.[6,7] Various investigations can be done to diagnose this abnormality. CT scan and ultrasound are not always conclusive.[8] Delayed imaging by cholescintigraphy is helpful as it shows delayed filling of portion of gall bladder. Multiphase MRI is used these days as investigation of first choice. It shows the anomaly more precisely. Multiphase MRI can differentiate between liver mass lesion and gall bladder anomaly. Cholecystectomy is indicated for symptomatic Phrygian cap, otherwise it has no pathological significance.[9]

CONCLUSION:

If the size of gallbladder appears smaller than gall bladder fossa or mass is seen during hepatobiliary imaging, Phrygian cap should be kept as a differential diagnosis. Multiphase MRI and CT can be used to rule out other conditions.

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