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Phrygian Cap Gallbladder

The most common congenital anomaly of the biliary tract found in 2-6% of autopsies is a folded gallbladder, also known as Phrygian cap gallbladder, since it resembles a bonnet worn by the ancient Phrygians of Asia Minor. The Phrygian cap occurs when the fundus of the gallbladder fold on itself. The literature suggests the Phrygian cap anomaly predispose this segment of the gallbladder to slow flow or delayed filling and hence lithiasis. High definition ultrasound and nuclear studies can identify a Phrygian cap. Other studies that can establish the diagnosis include CT-Scan and MRCP. Phrygian cap gallbladder should be a differential diagnosis considered when a mass is found associated with the gallbladder or liver adjacent to the gallbladder. Phrygian cap anomaly can also simulate duplication of the gallbladder. Acalculous and calculous cholecystitis have been associated with Phrygian cap gallbladder. In many cases with “Phrygian cap” deformity, there is a mucosal fold created, which partially subdivides the lumen of the organ. Most patients with Phrygian cap gallbladder are asymptomatic. Gallbladder with Phrygian cap deformity can lead to misdiagnosis of gallbladder stones on B-mode ultrasonography. Prophylactic cholecystectomy is not indicated in patients with Phrygian cap deformity alone as it is of no pathological significance. Surgery is performed only for patients with symptoms or complications of gallbladder disease irrespective of Phrygian cap deformity.

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BI-RADS in Children

Breast masses in children are rare but cause significant concern in parents. Fortunately most breast masses in children are benign consisting of fibroadenomas, gynecomastia, cysts and macromastia. Size, presence of symptoms and growth are the characteristics

that decide upon excision for diagnostic and therapeutic reasons. To avoid ionizing radiation, the ultrasound has become the best imaging study to perform in children breast masses. The breast imaging reporting and data system (Bi-Rads) developed by the American College of Radiology categorize these lesions based on the likehood of malignancy stipulating the need of tissue diagnosis in high classification cases. The risk of malignancy in children is lower than adults. Correlating Bi-Rads findings with tissue diagnosis it has been found that breast lesions in children with Bi-Rads classification of 4 where excision is strongly recommended are almost always benign. This usually occurs with juvenile fibroadenomas in teenage females. Most breast masses in children are commonly described as oval, hypoechoic and circumscribed, and almost never classified as calcified, with angular or spiculated margins or showing posterior shadowing. Should we follow adult management children with Bi-Rads 4 would undergo core-needle biopsy, a procedure which is painful and often requires anesthesia. In such situation excisional biopsy using a periareolar incision is more practical than core-needle biopsy. Breast masses with high Bi-Rads classification should be removed because of size, evidence of growth or persistent symptoms. Bi-Rads classification overstates the risk of malignancy in the pediatric population invalidating the treatment algorithm associated with the classification. Short term imaging follow-up is an acceptable alternative to immediate biopsy.

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Asymptomatic Malrotation Revisited

Midgut volvulus is a clockwise rotation of the bowel occurring in children and adults with malrotation presenting with acute symptoms of ischemia and bowel obstruction. Early recognition and surgical intervention is mandatory. Most cases occur during the neonatal period. Not all cases of malrotation ends in midgut volvulus, hence some patients present with asymptomatic malrotation if they are found incidentally with imaging studies compatible with such but complete absence of symptoms. Radiologic investigation

includes upper gastrointestinal series, Doppler sonography and contrast enhanced CT of the abdomen. UGIS is the test of choice for diagnosing malrotation. Ultrasound can be falsely negative and cannot be used to definitively rule out malrotation or volvulus. The management of asymptomatic or incidentally discovered malrotation is controversial. Malrotation can be divided into true malrotation with a narrow mesenteric stalk, nonrotation with a broad mesentery, and atypical defined as malposition of the ligament of Treitz or duodenum. Children with a higher incidence of malrotation include those with congenital heart disease (CHD) and heterotaxy syndrome, abdominal wall defect and diaphragmatic hernia. It's unusual to perform a Ladd's procedure for gastroschisis, omphalocele or diaphragmatic hernia as adhesions from surgery decrease the incidence of volvulus. There is minimal evidence to support screening in asymptomatic patients with CHD and heterotaxy syndrome. In this group of children it seems better to wait for palliation of the heart defect before offering a Ladd's procedure. Recent data from APSA regarding the need for prophylactic Ladd's procedure in asymptomatic malrotated children suggest it should be done for young age, while observation may be appropriate in the older asymptomatic patient. The laparoscopic approach is safe for diagnosing and managing asymptomatic malrotation, while there is minimal evidence to support the laparoscopic approach in cases of known volvulus or in neonates. Any age, any condition with symptomatic malrotation should undergo a Ladd's procedure.

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