



## Ectopic Localization of the Gallbladder at Posterior Caecum and Ascending Colon

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### Abstract

Ectopic localization of the gallbladder is a rare condition with an incidence of 0.1% to 0.7%. A 71-year-old male patient is admitted to the emergency room with abdominal pain. Patient with high bilirubin and cholestasis enzymes biochemical parameters were performed abdominal USG and CT. In preoperative abdominal CT, gallbladder was found ectopically located posteriorly of the right colon. ERCP was performed because of persistence of bilirubin levels, extrahepatic and hilus level intrahepatic bile duct dilation. Patient underwent open cholecystectomy with normal cholestasis enzymes and bilirubin levels.

**Keywords:** Right colon posteriorly located gallbladder; A new localization; Caecum

### Introduction

Ectopic localization of the gallbladder is a rare condition with an incidence of 0.1% to 0.7% [1]. The aim of this study was highlighting the gallbladder which has same clinical findings as normal gallbladder stone, but has anatomical and embryological based anomaly and ectopic localization.

### Case Presentation

A 71-year-old male patient is admitted to the emergency room with abdominal pain which was started one day before. The patient have not had any additional clinical symptom or additional disease and history of abdominal operation. There were minimally epigastric and right subcostal tenderness at physical examination. The laboratory findings was; White Blood Cell count (WBC); 9800, Total bilirubin; 2.3 mg/dl, Direct bilirubin; 1.9 mg/dl, liver function tests; AST; 512 IU/L, GGT; 246 IU/L, and ALP; 486 IU/L. At biliary Ultra Sound (US), there were gallbladder hydrops, minimal increase in thickness of the gallbladder wall, and multiple millimetric stones at gallbladder lumen. Additionally, there were dilatation at intrahepatic biliary ducts but common hepatic duct couldn't be assessed. Abdominal Computer Tomography (CT) had been performed to the patient with these findings. At abdominal CT, gallbladder localized at posterior of the ascending colon and caecum, there were stones at gallbladder lumen, and dilatation at intrahepatic biliary ducts (Figure 1 and 2). During follow up Endoscopic Retrograde Cholangio Pancreatography(ERCP) has been performed because of the persistence at increased bilirubin levels. The sphincterotomy for oddi sphincter have been performed and stones at intrahepatic ducts have been extracted with ERCP.

After bilirubin levels decreased to normal levels, open cholecystectomy have been performed to the patient. In the operation; fundus of the gallbladder have been mobilized from posterior ascending colon, and then cholecystectomy have been performed (Figure 3). After 3 days from

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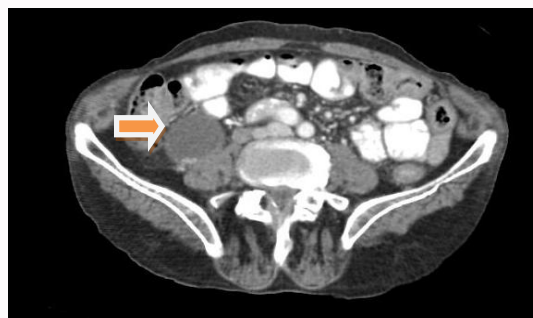


Figure 1: Bile duct fundus, right colon posterior (shown by arrow).



Figure 2: Gallbladder (indicated by arrow).



Figure 3: Gallbladder fundus posterior caecum-right colon (clamp shown fundus).

operation patient has been discharged without any complication. Final pathology have been reported as chronic cholecystitis.

## Discussion

Ectopic localization of the gallbladder is a rare condition with an incidence of 0.1% to 0.7% [1]. Gallbladder anomalies can be classified as count (agenesia, bilobular gallbladder, multiseptate gallbladder), shape (phrygian cap gallbladder, diverticulum of gallbladder, hypoplasia or rudimentary gallbladder), and position (left side localised, transverse position, suprahepatic or intrahepatic gallbladder). Agenesis is the most common anomalie of the gallbladder [2]. Additionally, in the literature, there were studies that reported the gallbladder could be find at different localisations like retroperitoneal, lesser sac, retroduodenal, falciform ligament, inside the abdominal muscles and inside the thorax [1,3,4] Ehman et al. [5] reported a case that gallbladder localized at retrorenal area. Our case is the first case of the literature that describes the gallbladder at posterior of the ascending colon.

Abnormal position of gallbladder can cause diagnosis problems at US. In such cases, different localizations should be considered in the presence of long cystic duct, biliary absent in the normal liver

bed, and presence of suspicious cystic duct [6]. Abnormal localised gallbladder must be removed even the patient was asymptomatic [7]. Description of the gallbladder's localization accurately, is an important point for the right choice of surgery type [8]. US, CT, and cholescintigraphy are the most common modalities for description of the localization of the ectopic gallbladder [9]. CT can determine all ectopic gallbladders localizations accurately, and Magnetic Resonance Cholangio Pancreatography(MRCP) additionally can identify biliary duct abnormalities [10,11]. Also in our case, CT was the most important imaging modality for description of gallbladder localization and making a decision on the choice of surgery type too.

## Conclusion

Our case is the first case of the literature that describes the gallbladder at posterior of the ascending colon. We use CT for diagnosis of ectopic gallbladder and choose open cholecystectomy procedure for treatment of the patient.

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