

Agensis of the Gallbladder Without Biliary Symptoms: Case Report

Biliyer Semptom Vermeyen Safla Kesesi Agenesisi

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ABSTRACT Agensis of the gallbladder is a rare entity, with an estimated incidence of 10-65 per 100 000. Patients are usually asymptomatic and the diagnosis is commonly made incidentally, during an abdominal surgery session or at autopsy; resulting in the patient undergoing unnecessary operative intervention. The risk of intraoperative iatrogenic injury is higher, and the associated morbidity of the procedure is greater. Here we reported the case of a gallbladder agensis, who was being investigated for dyspeptic complaints and incidentally diagnosed as having gallbladder agensis; her complaints owing to a gastric ulcer. As practiced here; with advanced imaging techniques of our times, the diagnosis is easily settled, so the patient can keep away from invasive modalities and their possible complications.

Key Words: Abnormalities; gallbladder

ÖZET Safla kesesi agenezi, nadir rastlanan bir durumdur, insidansı 100 000'de 10-65 arasındadır. Hastalar genellikle semptomsuz olup; tanı bir batin içi ameliyatı sırasında veya otopsi esnasında tesadüfen konur. Dolayısıyla hasta, gereksiz bir ameliyat geçirmek zorunda kalır. Opere olunca, iyatrojenik hasar riski daha yüksek olduĐu gibi, morbidite oranı da artmaktadır. Burada, dispeptik yakınmalar için tetkik edilirken tesadüfen safla kesesi agenezi tanısı alan ve řikayetlerinin mide ülserine baĐlı olduĐu anlařılan bir vakayı takdim ettik. Bu vakanın da gösterdiĐi gibi, zamanımızın ileri görüntüleme tekniklerini kullanarak tanı kolayca konabileceĐinden, hasta da invaziv işlemler ve bunlara baĐlı geliřebilecek komplikasyonlardan uzak durmuř olur.

Anahtar Kelimeler: Anormallikler; safla kesesi

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Agenesis of the gallbladder is a rare entity, with an estimated incidence of 10-65 per 100 000.^{1,2} Patients are usually asymptomatic and the diagnosis is commonly made incidentally, during an abdominal surgery session or at autopsy.² It is estimated that 25% to 50% of these patients will develop common bile duct stones and 23% will eventually become symptomatic, usually in the fourth or fifth decade.^{3,4} Combined with the rarity of the condition, the diagnosis is infrequently made preoperatively, resulting in the patient undergoing unnecessary operative intervention. The intraoperative risk of iatrogenic injury is higher, so the associated morbidity of the procedure is greater.⁵ Despite recent advances in biliary tract imaging, the preoperative diagnosis of the gallbladder agensis remains elusive.

CASE REPORT

50 year old female patient admitted to our outpatient clinic with complaints of gastric pain. In physical examination, only epigastric sensitivity could be detected. Whole blood count and biochemical values (including transaminases and cholestasis enzymes) were all within normal ranges. With gastroscopy, we detected a 5 mm gastric ulcer on antrum. *Helicobacter pylori* (Hp) was positive at antral biopsies and her complaints disappeared after the successful eradication of Hp. An abdominal ultrasonography (USG) revealed that the patient was cholecystectomized but when asked, the patient said that she was never operated before (Figure 1). So we performed a MR (Magnetic Resonance) cholangiographic (MRC) examination of the patient. On MRCP, there was no gallbladder, with normal intra and extra hepatic bile ducts (Figures 2, 3). The patient was diagnosed as having gallbladder agenesis and her complaints owing to the gastric ulcer.

Informed consent was obtained from the patient.

DISCUSSION

Agnesis of the gall bladder is a rare entity with an estimated incidence of 10-65 per 100 000.^{1,2} The incidence is noted to be higher (up to 90 per 100 000) in studies based on autopsy reports.³ Pathogenesis is related to embryonic development failure of the gallbladder and cystic duct to bud off from the common bile duct, during the fifth week of gestation.⁶

Clinically, three presentations of the gallbladder agnesis, have been described; **1.** Asymptomatic (An incidental finding at laparotomy, performed for another reason) (35%), **2.** Symptomatic (50%), **3.** In children with multiple fetal anomalies (Such as the tetralogy of Fallot and agnesis of the lungs), who died in the perinatal period (15%). Our patient fits the first group and was diagnosed with gallbladder agnesis while she was being examined for dyspeptic complaints.

Despite the absence of a gallbladder; up to 50% of the patients present with symptoms similar to

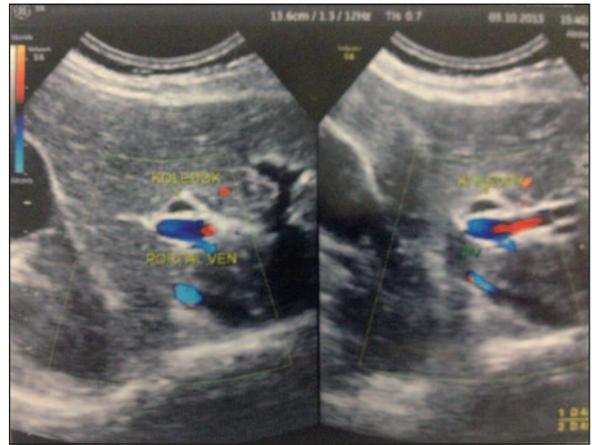


FIGURE 1: In ultrasonographic examination, there was no gallbladder in place; intrahepatic bile ducts and choledochus were normal.

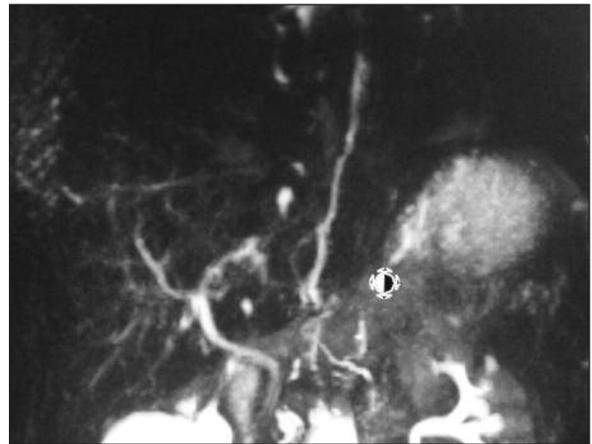


FIGURE 2: There was no gallbladder in MRCP, intrahepatic bile ducts and choledochus were normal.

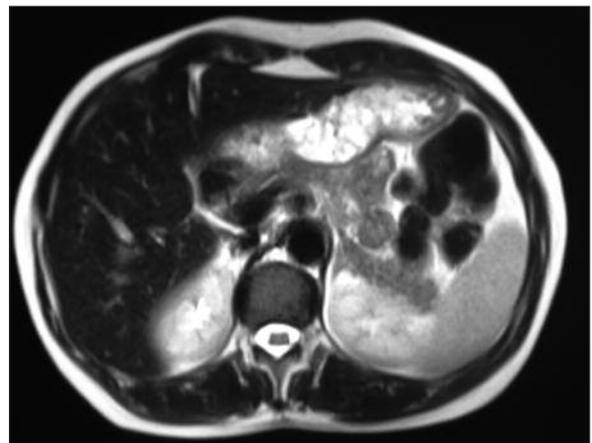


FIGURE 3: In MRI, there was no gallbladder in place.

biliary colic.⁶ In many cases, associated development of common bile duct stones may be the cause.² Our patients' complaints were due to peptic ulcer disease and disappeared after Hp eradication therapy. Gallbladder agenesis caused no clinical problem for her and was asymptomatic in this respect.

Females are more commonly affected (in a 3:1 ratio) and typically present in the 2nd or 3rd decade of life.⁷ Our patient was 50 years old; diagnosed while she was being examined for epigastric pain.

In the 1960s, Frey suggested that the diagnosis of agenesis of the gallbladder could be made only at laparotomy, after having searched for and excluded an ectopic gallbladder; after which an intra-operative cholangiogram should be undertaken, to confirm the diagnosis.⁸ However, the development of different imaging techniques over the years, has led people to question the necessity of operative intervention for the diagnosis of this rare condition.⁹

Significant progress in radiology and widespread availability of non-invasive imaging tech-

niques like CT (Computed tomography), MRCP and EUS (Endoscopic ultrasound); provide an excellent alternative to open exploration and intra-operative cholangiography.^{10,11} In those cases which are diagnosed intraoperatively, patients often are exposed to complications from prolonged exploration and it is suggested to abort the procedure rather than complete further exploration if a gallbladder is not found on laparoscopy, since open exploration for possible ectopic gallbladder increases the risk of complications.³ Intraoperative ultrasound can demonstrate an ectopic gallbladder but it is not always available.¹² Our patient was diagnosed with USG and MRCP, in a non-invasive way.

The agenesis of gallbladder is a real rare entity and is generally diagnosed during an operation. With advanced imaging techniques of our times, the diagnosis is easily settled, so the patient can keep away from invasive modalities and their possible complications. That is the reason we presented this case to your attention.

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