

Biliary basket impaction-a rare complication of ERCP: report of a case

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SUMMARY

Endoscopic retrograde cholangiopancreatography plays an important role in the treatment of choledocolithiasis when combined with sphincterotomy and stone retrieval. Endoscopic basket impaction is a rare and an unusual complication. We herein report a successful removal of an impacted endoscopic basket from an elderly patient with choledocolithiasis by surgical exploration. A 65-year-old male patient was admitted to our service with choledocolithiasis. Endoscopic retrograde cholangiopancreatography and sphincterotomy was performed, but the stone could not be withdrawn via the basket because of the impaction. Surgery was our choice to remove the impacted basket. Decision of the treatment strategy in choledocolithiasis is very important and should be adapted to the patient's general health status. The treatment modalities are various including surgical approach, and we herein describe our choice without complication and successful outcome.

Key words: Basket impaction, complication, endoscopic retrograde cholangiopancreatography, sphincterotomy

ÖZET

Endoskopik basket sıkışması-nadir bir ERCP komplikasyonu: olgu sunumu

Endoskopik retrograd kolanjiyopankreatografi, özellikle sfinkterotomi ve taş çıkarılması ile kombine edildiğinde koledok taşlarının tedavisinde önemli bir rol oynar. Endoskopik basket sıkışması nadir ve az görülen bir komplikasyondur. Bu yazıda koledoktan endoskopik olarak taş çıkarılması sırasında ortaya çıkan basket sıkışması olgusunun cerrahi eksplorasyon ile başarıyla tedavi edilmesi sunulmuştur. Altmış beş yaşında erkek hasta servisimize koledok taşı nedeniyle müraacaat etti. Yaklaşık 2 aydır karın ağrısı olan hasta hastanemize başvurdu. Endoskopik retrograd kolanjiyopankreatografi ve sfinkterotomi uygulandı fakat taş, basket kateterin sıkışması nedeniyle çıkartılamadı. Cerrahi tedavi ile sıkışmış basket çıkartıldı. Koledok taşlarında tedavi tipinin seçimi çok önemlidir ve hastanın genel sağlık durumuna göre seçilmelidir. Cerrahi yaklaşım da dahil olmak üzere tedavi seçenekleri çeşitlidir ve biz burada herhangi bir komplikasyon oluşmadan başarıyla uyguladığımız tedavi seçeneğimizi sunmaktayız.

Anahtar kelimeler: Basket sıkışması, komplikasyon, endoskopik retrograd kolanjiyopankreatografi, sfinkterotomi

Introduction

Endoscopic retrograde cholangiopancreatography (ERCP) is a necessary method to diagnose pathologies of the pancreatic and biliary systems (1). ERCP plays an important role in the treatment of choledocolithiasis when combined with sphincterotomy and stone retrieval (2). Complications of ERCP have been reported to occur in 5-10% of the cases (3). Endoscopic basket impaction is a rare and an unusual complication of ERCP (4,5). We herein report a successful removal of an impacted endoscopic basket from an elderly patient with choledocolithiasis by surgical exploration.

Case Report

A 65-year-old male patient admitted to our clinic with a 8-week history of right upper quadrant pain, nausea, vomiting and jaundice. Abdominal ultrasonography showed multiple gallbladder stones, dilated intrahepatic bile ducts and a common bile duct extending to 15 mm. Laboratory studies included a total white blood cell count of $8 \times 10^3/\text{mm}^3$, serum alkaline phosphatase of 294 IU/L and a total bilirubin level of 12.3 mg/dL. The patient was referred for ERCP. Common bile duct (CBD) was visualized easily and cholangiography revealed a dilated CBD and filling defect of a 20 mm stone (Figure 1). Sphincterotomy was performed without difficulty, a Dormia extraction basket was then placed, the stone was encircled, but, following multipl attempts, the basket could not be withdrawn into the duodenum. Therefore surgical treatment was decided and the patient underwent laparotomy with cholecystectomy, and bile duct exploration. The basket and the stone were disimpacted and delivered through a longitudinal choledochotomy (Figure 2). The wires leading to the basket were cut, the proximal end of the device was withdrawn via the mouth, and the basket, with the stone, was extracted via the incision. Choledochoscopy revealed

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Figure 1. Dilated common bile duct and filling defect of a 20 mm stone

no residual stone or fragment. A T-tube was inserted, and the choledochotomy was closed. Postoperatively the patient made an uneventful recovery and a T-tube cholangiogram, which was performed on the 5th day was normal. Total bilirubin levels decreased to the normal ranges and the patient was discharged. After 2 weeks T-tube was removed.

Discussion

ERCP, sphincterotomy and stone extraction is currently the best method for the management of choledocholithiasis (2). Common complications of this procedure include bleeding, perforation, sepsis, cholangitis and pancreatitis. Rare complications such as endoscopic basket impaction were seen uncommonly (5). Thus far, few cases of endoscopic basket impaction have been reported within the hepatic ducts, mid-CBD, gallbladder, and at the ampulla of Vater (1). Reported management strategies of impacted biliary basket with a captured stone after ERCP have included endoscopic or surgical procedures (6,7). Various nonsurgical options including endoscopic lithotripsy, extracorporeal shock waves have been suggested to deal with this problem (1,8). However, these methods are not widely available, and if these procedures fail, surgical intervention with CBD exploration is required (1,9).

In conclusion, decision of the treatment strategy in choledocholithiasis is very important and should

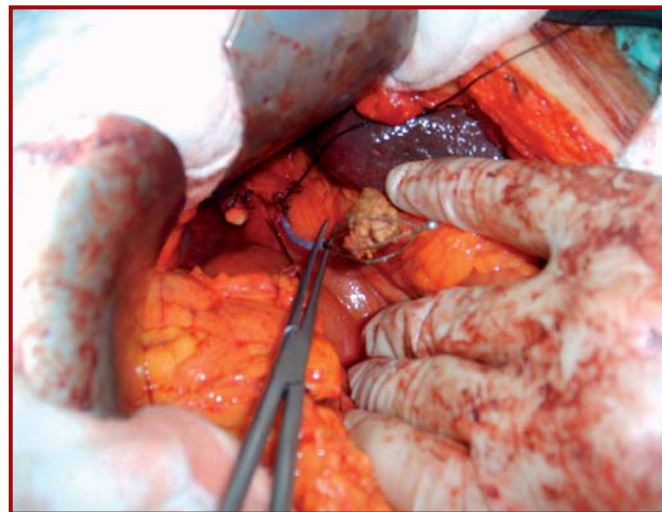


Figure 2. The basket and the stone were disimpacted and delivered through a longitudinal choledochotomy

be adapted to the patient's general health status. The treatment modalities including surgical approach are various, and we herein describe our choice without complication and successful outcome.

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