



## Hepatolith with Extrahepatic Bile Duct Adenoma for Hepatopancreatoduodenectomy: A Case Report

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### Abstract

Extrahepatic bile duct adenoma's was rare and many researchers reported HPD and the diagnosis was mainly malignant disease of the hepatobiliary system. This is the first benign hepatobiliary system disease to do the HPD.

**Keywords:** Hepatopancreatoduodenectomy; Extrahepatic bile duct; Pylorus adenoma; Case report

### Introduction

Extrahepatic bile duct adenoma's is rare and less common than the gallbladder. However, it should be treated in the early stage because of the cancerative tendency. In previous papers there were many researchers reported HPD and the diagnosis was always cholangiocarcinoma or gallbladder carcinoma which has hepatic invasion, rarely seen in combined with hepatolith. We present a case of hepatolith with extra hepatic bile duct adenoma, which is the first benign hepatobiliary system disease to do the HPD.

### Case Presentation

A 56-year-old man who present intermittent right sub costal pain and aggravating for 10 days. The patient suffered from the right subcostal cramps pain from 2008 and can be controlled by oral pain medications every time. 10 days before admission the cramps pain recurrence and could not controlled by medicine. This time he associated with jaundice and skin itch. The patient denied any nausea, vomiting, fever and acholic stool. Since 1 month before admission he had loose of the weight for 7 Kg. On physical examination, he had no positive signs.

Further laboratory examination showed ALT 35U/L, AST 30U/L,  $\gamma$ -GT 29U/L, ALP 216U/L, LDH 180U/L, TBIL 17.3  $\mu$ mol/L, DBIL 12.4  $\mu$ mol/L. Tumor marker was not higher. Enhanced computed tomography of the abdomen and pelvis showed multiple stones in left hepatic duct, and a tumor which sized 1.5 cm  $\times$  1.2 cm at ampulla, enhanced in both three phases at CT scans (Figure 1A). MRI showed left hepatic duct dilatation and also observed a tumor at ampulla (Figure 1B). So we decided to do the duodenoscopy in order to obtain the pathological specimens (Figure 1C). On duodenoscopy the tumor appeared as single, firm and congested. And the diagnosis of pathology considered Low grade intraepithelial neoplasia.

Later the patient underwent diagnostic laparotomy, which found that a tumor liked strips at ampulla. So, combined the result of duodenoscopy and enhanced CT we performed pancreatoduodenectomy for him. And because of the hepatolith the patient underwent left lateral lobectomy at the same time. Postoperative pathology showed ampulla tumor sized 1.5 cm  $\times$  1.5 cm  $\times$  1.5 cm and in pathological sections diagnosis was pylorus adenoma of bile duct (Figure 1D,1E).

### Discussion

Hepatopancreatoduodenectomy (HPD) was first reported by Takasaki at 1980 [1]. Currently, there is no explicit indication for HPD and it is commonly applicable to gallbladder cancer or cholangiocarcinoma invading the liver or intrahepatic metastasis which limited only one lobe [2]. Miyata et al. [3] reported a case who diagnosed neuroendocrine tumor of duodenum combined left liver metastasis and underwent HPD. This is the first reported case of HPD which is nonmalignant disease in the liver. Due to virus number of organs involved in HPD, wide operation scope and long operation time, the risk of postoperative complications is high, which reported to be 71.4% in literature [4]. Common postoperative complications include hepatic insufficiency, pancreatic fistula, biliary fistula, and incision infection.

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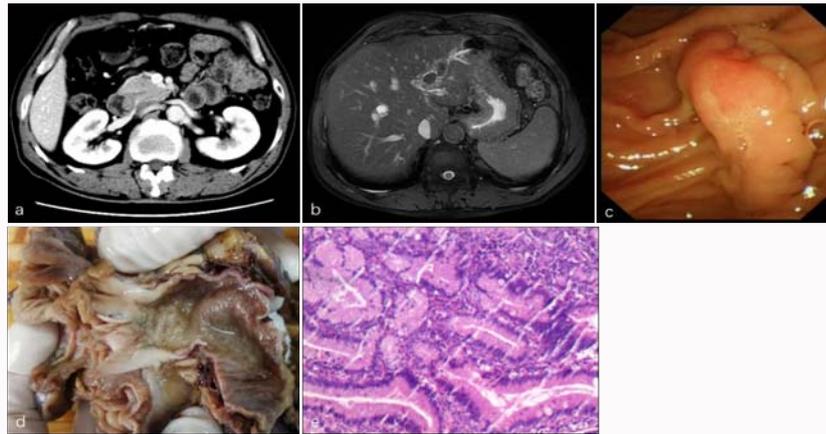
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**Figure 1:** A) Enhanced computed tomography showed ampulla tumor (arrow), B) MRI showed left hepatic duct dilatation (arrow), C) Duodenoscopy, D) General observation of postoperative pathology (arrow), E) Depiction of the tumor in microscopy.

Extrahepatic bile duct adenoma is rare in the clinic, which accounts for less than 5% of all extra hepatic bile duct tumors [5]. Bile duct adenoma involving multiple pathological classifications through its growth pattern, including villous, tubular and villoustubular adenoma. Notably, histological type including pyloric gland type, which is almost seen in gall bladder, intestinal type, which is almost seen in extra hepatic bile duct, and bile duct type [6]. Because of the malignant change tendency in extra hepatic bile duct adenoma, especially observed atypical hyperplasia [7]. Therefore it should be confronted as soon as possible. Studies have shown that CD10 expression is significantly increased in malignant extra hepatic cholangiocarcinoma [8]. Due to the preoperative diagnosis is relatively difficult, in most cases it is confirmed by intraoperative frozen section or postoperative pathology during or after the pancreaticoduodenectomy.

## Conclusion

We described a case of hepatolith with extra hepatic bile duct adenoma and underwent hepatopancreatoduodenectomy. HPD is rare presented and this is the first benign hepatobiliary system disease to do the HPD. We discussed the method and procedure of HPD and the pathology of extra hepatic bile duct adenoma.

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