CASE REPORT

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Difficulties in the management of Klatskin Tumor: a case report and review of literature

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ABSTRACT

Background: Tumours of the biliary tract are rare, and difficult to recognize in early stages. Due to its late presentation and the location of the tumour, a definite diagnosis is not always possible preoperatively. Therefore, some guidelines maintained that diagnosing these tumours may be made intraoperatively or postoperatively when tissue samples are available. This study aimed to report a case of a patient with jaundice and subsequently diagnosed as Klatskin tumour.

Case Description: A 54 years old women came to our surgical clinic with the chief complaint of jaundice for two months. Magnetic Resonance Cholangiopancreatography (MRCP) showed a mass on the confluent of the bile duct, infiltrating both right and left hepatic duct, with no evidence of metastasis or infiltration of the portal vein. Carcinoembryonic antigen (CEA) and cancer antigen (CA) 19-9 were within normal limits. We found that the tumour did not extend to the bile duct serosa clinically, performed by choledocotomy and biopsy of the tumour, and evaluated by frozen section pathology. The result showed no malignancy. However due to the tumour showed clinical signs of malignancy and caused bile obstruction, we decided to performed oncological resection of all involved bile ducts and dissection of lymph nodes, and bilateral hepaticojejunostomy bypass Roux en Y. The pathological evaluation of the postoperative showed an adenocarcinoma.

Conclusion: For clinical and radiological, highly suspicious Klatskin tumour, exploratory laparotomy, intraoperative biopsy and the intraoperative decision based on the findings may be justified. The surgeon must be prepared to perform all necessary procedure before attempting to do a laparotomy.

Keywords: Klatskin tumour, difficulties in management, intraoperative decision.
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INTRODUCTION

Jaundice is one of the most common complaints of disease involving the biliary tract. While it is convenient to separate jaundice to prehepatic, hepatic and post hepatic origin based on direct or indirect serum bilirubin increase. However, this description may not define whether the bile duct obstruction occurs on the intrahepatic bile ducts of extrahepatic bile ducts. In the case of obstructive jaundice, an anatomical assessment is necessary.

One of obstructive jaundice causation is biliary duct malignancy. The cause of malignancy is not clear, but several factors, including repeated inflammation/infection, increased the risk of biliary malignancy. Anatomically, cholangiocarcinoma can be divided into intrahepatic and extrahepatic type. The extrahepatic type consists of proximal and distal type. The intrahepatic type consists of hilar (Klatskin tumour) and parenchymal type. Hilar cholangiocarcinoma may extend to the proximal extrahepatic bile duct and common bile duct. Due to deep anatomical location, the histopathological diagnosis of malignancy cannot always be determined without an open or operative biopsy.

CASE REPORT

A 54-years old woman came to our surgical clinic with the chief complaint of jaundice for two months. The jaundice was progressive, along with weight loss. The patient also complained of pain in the epigastric area and fever seldomly. Physical examination showed icteric sclera, but otherwise no other significant findings. The abdomen is fatty, but no mass is palpable. We performed MRCP, which showed a mass on the confluent of the bile duct, infiltrating both right and left hepatic duct, with no evidence of metastasis (Bismuth type IV). Tumour markers, CEA and CA 19-9, were within normal limits.

Based on these findings, we performed a laparotomy. Intraoperatively, the tumour is limited to intra lumen, and no regional lymph node was enlarged. Specimen from inside the lumen of the bile duct after choledochotomy was taken for frozen section, but the results showed no malignancy. Based on the clinical findings, the macroscopic features of the tumour (irregular surface, tendency to bleed on contact), and apparent obstruction of the bile duct, we decided to perform an oncological

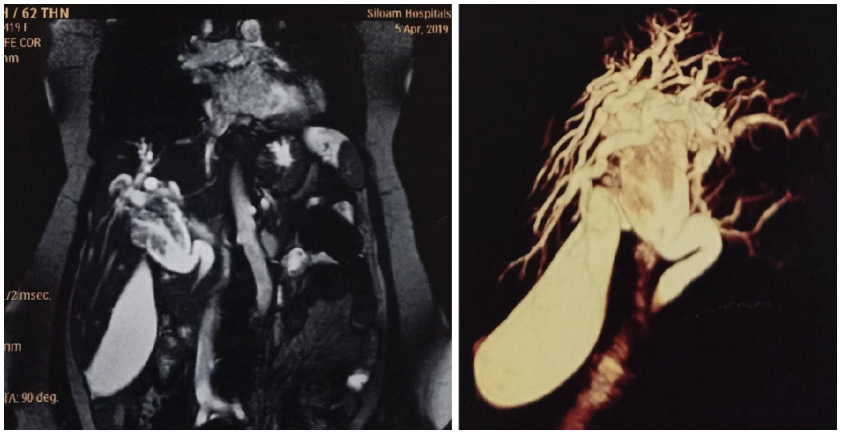

Figure 1. Result of Magnetic Resonance Cholangiopancreatography (MRCP) in this patient showed a mass of bile duct, infiltrating to both hepatic duct.

resection of the tumour along with regional lymph node dissection. A bilateral hepaticojejunostomy Roux en Y reconstruction was performed. The postoperative complete pathological evaluation showed an adenocarcinoma.

DISCUSSION

Complete surgical resection (R0) is still the best management for hilar cholangiocarcinoma, even though this is only possible in less than 30% of cases.[1] while systemic chemotherapy had advanced, the results are not satisfying. Locoregional chemotherapy-based treatment such as Trans-Arterial Chemoembolization (TACE) showed better results in prolonging survival for non-resectable cases, along with a combination of chemoradiotherapy with or without subsequent liver transplantation.[1,2]

A technical approach to resection and reconstruction had developed to facilitate complete resection.[3] Hepaticojejunostomy using basin-shaped technique had low postoperative complication rate.[4] Hepatic resection using extraglissonean method is an alternative to the classical approach of identifying and resecting each component of the portal triad.[5,6] Some guidelines recommend that local extension does not define surgical unresectability. Therefore one must strive to resect as clean as possible.[7,8] Portal vein embolization may be considered in planned extensive hepatectomy to reduce complication.[7,8]

Overall survival of hilar cholangiocarcinoma is still weak even after complete resection, but compared to the palliative approach, the survival is better. One study showed that even positive margin of resection in curative intent surgery did not worsen the survival.[9] However, it is still recommended that all curative intent resection be attempted. Most patients presented with hyperbilirubinemia, which were found to be negatively affecting the perioperative outcome. Studies had shown that while this is true, preoperative biliary drainage showed mixed results, some showed better outcome while others did not. A recent study recommended preoperative biliary drainage with the cut off of ≥6.00 mg/dL. It should be considered in patients with a bilirubin concentration <6.00 mg/dL and ≥2.50 mg/dL to reduce morbidity.[10] In hilar cholangiocarcinoma cases, surgical resection should be attempted as far as possible, since currently, no alternative treatment offered better survival.

CONCLUSION

For clinical and radiological, highly suspicious Klatskin tumour, exploratory laparotomy, intraoperative biopsy and an intraoperative decision based on the findings may be justified. The surgeon must be prepared to perform all necessary procedure before attempting to do a laparotomy.

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ETHICAL CLEARANCE

This study has obtained ethics approval prior to the study conducted.

CONFLICT OF INTEREST

The author declares that there were no conflicts of interest in this study.

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AUTHOR CONTRIBUTION

The author is contributed to the study from data gathering until reporting the result of the study.

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