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LETTER TO EDITOR

Right hepatectomy with en-bloc resection of bilateral hepatic arteries for Bismuth type IIIa hilar cholangiocarcinoma: A case report

**KEYWORDS**
Cholangiocarcinoma; Surgical resection margin; Hepatic arterial reconstruction

Dear Editor,

We read the previous article entitled “Survival after surgical resection of distal cholangiocarcinoma: A systematic review and meta-analysis of prognostic factors” by Zhou Y et al. This review of 3258 patients is one of huge and impressive studies, discussing the surgical resection of distal cholangiocarcinoma. They concluded R0 resection and lymph node metastasis were the most important prognostic factors. Here, we would like to comment about this article, describing our case report.

While R0 resection for distal cholangiocarcinoma can be achieved by pancreaticoduodenectomy, R0 resection for hilar cholangiocarcinoma is more difficult to achieve, because hilar anatomy is more complicated with the invasion and extension of the tumor. Moreover, it is also difficult to decide the indication of extended surgery such as hepaticoduodenectomy or heptectomy combined with vascular resection for compromised patients. Many cases of curative-intent extended surgeries have recently been reported, and some of these cases were R1/2 resection. However, these procedures showed acceptable morbidity and mortality compared with spontaneous outcomes among unresectable patients.

As the surgical techniques and knowledge of liver transplantation have recently advanced, hepatopancreatobiliary surgeons have acquired better skills and wider choices of reconstruction even for tiny hepatic arteries. Here is our unique surgical case of hepatic artery reconstruction for hilar cholangiocarcinoma.

An 81-year-old woman with a complaint of epigastric discomfort was diagnosed of Bismuth type IIIa locally advanced hilar cholangiocarcinoma. Given her good physical status, we decided on surgery for curative treatment. One month after percutaneous transhepatic portal embolization of the right portal vein (PV), she underwent right heptectomy. The tumor had invaded the right hepatic artery (RHA), left hepatic artery (LHA), proper hepatic artery and PV, as shown in the preoperative studies, and was removed by en-bloc vascular resection. At LHA reconstruction, the tumor was so close to the bifurcation of the common hepatic artery (CHA) that suturing the proximal cut end and sparing the gastroduodenal artery (GDA) was difficult, because the arteries could be affected by postoperative stricture. The LHA and CHA were therefore connected with an interpositional graft using the GDA and anterior superior pancreaticoduodenal artery (Fig. 1). Unfortunately, the distal surgical margin was found to be R1, but we did not add pancreatoduodenectomy after careful consideration of background factors such as age, physical status, and nodal involvements. According to the Union for International Cancer Control 8th edition, the histopathological diagnosis was well-differentiated adenocarcinoma, pT4, pN1, pStage IIIC. After administration of S-1 as adjuvant chemotherapy, as of the time of writing, 15 months after surgery, she remains alive without recurrence.

As described in the previous article, several studies has been ongoing to find whether adjuvant chemotherapy results in survival benefits for cholangiocarcinoma. In the near future, advance in chemotherapy can have potential to expand surgical indication. We believe the most important strategy for cholangiocarcinoma is to perform optimal extended procedures after careful consideration of background factors. We will...
keep making efforts toward seeking for the surgical possibility of expanded indications and improved curability for cholangiocarcinoma.

Conflicts of interest

The authors have declared no conflict of interests.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.asjsur.2019.07.018.

References


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15 July 2019
Available online 9 August 2019
Dear Author,

The authors described a surgical case of right hepatectomy combined with en-bloc resection of bilateral hepatic arteries and with reconstruction of left hepatic artery for Bismuth type IIIa hilar cholangiocarcinoma.

In this case, the left hepatic artery and common hepatic artery were connected with an interpositional graft using the GDA and anterior superior pancreaticoduodenal artery. The paper is clearly presented and the data make a useful contribution to the literature on hilar cholangiocarcinoma.

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