
Limited resection

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Extended hepatic resection has been shown to improve prognosis and long term result by increasing margin free resectability in hilar cholangiocarcinoma, but high surgical morbidity and mortality related to hepatic failure has been reported. Because of the fear of hepatic failure, parenchyma preserving limited resection was introduced and the result of the long term survival was comparable to extended liver resection outcomes.¹ Limited resection can be conducted safely and are especially beneficial for aged patients with comorbidity in a less advanced tumor stage if tumor-free margins are obtained.²

The extent of surgery in hilar lesion can be affected by the location of tumor, usually Bismuth classification helps determine the surgical extent. Patients with Bismuth type I and II hilar lesions were mainly treated with hilar resection without extending the resection to the liver parenchyma compared with patients having hilar lesions type III and IV, which were predominantly treated with hepatectomy. Even some reported that long term survival benefits after extended liver resection in Bismuth type I and II hilar lesions, recent report did not show survival difference.³

The type of resection can be determined with the gross appearance of the tumor on cholangiogram, papillary, nodular, or infiltrating and hepatectomy was indicated for patients with nodular or infiltrating tumors. But because of less invasiveness of the tumor, in patients with papillary tumor, bile duct resection or limited hepatectomy could be performed according to the extent of cancer extension.⁴

In cases of positive distal frozen section, resection of the bile duct is performed with pancreatic resection, hepatopancreatoduodenectomy may be needed for the margin free resection, but the high morbidity and mortality rate for hepatopancreatoduodenectomy still reported. However in some instance R0 resection can be achieved by a combination of the usual extrahepatic bile duct resection and funnel-shaped excavation of the proximal intrapancreatic bile duct.⁵ This kind of resection seems beneficial to the patient with high operative morbidity and the patient with less invasive cancer originated from papillary growth.⁶

Tumor free resection is crucial factor in hilar cholangiocarcinoma. The limited and parenchyma preserving surgery could be applied to hilar cholangiocarcinoma when R0 resection can be achieved depending on the location and tumor characteristics. The limited resection is a considerable surgical option in patient with comorbidity and a risk of hepatic failure.

References

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