

Limited resection including local bile duct resection

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Surgical resection of the hilar cholangiocarcinoma(CC) offers the only chance of a potential cure. As diagnostic imaging & surgical equipment, techniques, and perioperative management have developed, the extent and indications for resection have been expanded. Most centers performed liver resection in addition to bile duct resection, and this combined procedure has yielded improved R0 resection and survival rates. However the role of hepatectomy is still a matter of discussion for patients with Bismuth type I & II. Most of studies about hilar CC were not randomized and there is no prospective study concerning the operation types (hilar resection Vs. Hepatectomy). Compared survival data according to the operation type, most studies showed the major hepatic resection group has better survival than the bile duct resection group but without any statistical significance.

There are two tumor spreading and infiltration patterns: longitudinal extension and vertical infiltration. The evaluation of longitudinal extension and vertical infiltration is critical to define the resectability and curability. Dynamic multidetector computed tomography(MDCT) and magnetic resonance imaging(MRI) are now widely used for the preoperative evaluation and staging of bile duct cancer. The diagnostic accuracy has been improved upto over 90% with limitation for evaluation of the longitudinal extension. The tumors can be classified as papillary, nodular and infiltrating types. Although Ikeyama et al. suggested that the hilar resection might be indicated for papillary T1 or T2 tumors in Bismuth type I & II, a gross surgical margin of more than 1 cm in the infiltrating type and more than 2cm in the papillary and nodular types is recommended to obtain microscopically negative margins. Intraoperative frozen section examination for resection margin of bile duct has been usually used to determine the extent of resection. In the patients with impaired liver function and poor general condition, the extensive combined liver resection can increase surgical morbidity.

Especially between R0 & R1 resection, there is no statistically significant survival benefit because of high recurrence rate. However the effects of postop adjuvant chemoradiotherapy have not definitely proven yet, it is recommend in case of microscopic resection margin involvement. Sometimes long term survivals with resection margin involvement were reported after postoperative chemoradiotherapy.

Recently although long term followup and more data are needed to evaluate its benefits, single incision laparoscopic hilar resection can be optional in strictly selected patient with Bismuth I.

In conclusion, considering the morbidity and mortality of hepatectomy, hilar resection for type I & type II tu-

mors without liver resection might be sufficient if only a tumor free margin is guaranteed.

References

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