Appropriate extent of surgical resectin for the extrahepatic BD cancer; segmental resection is feasible if the R0 surgical margin is obtained

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Extrahepatic bile duct cancer has been classified as hilar cholangiocarcinoma and distal bile duct cancer according to the anatomical location of the tumor.[1,2] Although they have same epithelial cells lining and histologically, they could be considered together, but they are usually classified as separate entities because of different clinical manifestation and treatment strategy.[1,2] About 20-30% of all cholangiocarcinoma are located in the distal bile duct.[2,3] Distal bile duct cancer can be further subdivided into middle bile duct carcinoma which is defined as infrahilar/suprapancreatic area or middle third of the bile duct and distal bile duct cancer which is referred to the intrapancreatic bile duct.[4-6]

Whereas hilar cholangiocarcinoma is classified separately from extrahepatic bile duct cancer and has different classification system from extrahepatic bile duct cancer, mid and distal CBD cancer is considered as same disease entity and have same AJCC classification. There are several reasons for that. First of all, it is difficult to separate mid CBD cancer from distal CBD cancer. Microscopically, tumors are rarely confined to one segment (proximal, middle or distal bile duct) because bile duct cancer tends to spread along the bile duct wall longitundinally.[2,7] Second, whereas there are different operative approach between hilar cholangiocarcionma and extrahepatic bile duct cancer, in mid and distal CBD cancer, pancreaticodudenectomy has been regarded as standard operative procedure, although segmental bile duct resection can be applied in limited indication.

However, mid bile duct cancer has some unique clinical characteristics when compared to distal BD ca. Some authors have suggested that possibility of poor prognosis in mid CBD cancer than distal CBD Ca. Cancer located in the middle bile duct may be higher possibility of microscopic tumor invasion of periductal structure in hepatodudenal ligament. This may influent to involve of adjacent hepatic artery or portal vein and higher chance of radial margin involvement. In contrast, in cancer confined at intrapancreatic portion (distal CBD), periampullary structures such as the pancreas or the duodenum may protect from tumor spread into adjacent tissue. Therefore, possibility of poor outcome in mid CBD cancer can be suggested. However, actual differences of long term outcome according to the location has not been clarified6, 8-12 Other concerning is that there is debate of appropriate operative procedure for the tumor confined middle bile duct. Usually pancreaticoduodenectomy is

performed for treating MBD cancer because it has a tendency to spread along the bile duct wall. However, there is still debate about treatment for tumor confined in mid bile duct that bile duct resection can be appropriate treatment for that.

However, surgical treatment for mid CBD cancer has not been fully discussed and there are debates that segmental resection of the bile duct can be alternative treatment to pancreaticoduodenectomy in confined mid bile duct.[13]

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