

Hepatobiliary and Pancreatic Surgery

Introduction

Many borderline malignancies and benign tumors has been detected by the recent development of various diagnostic techniques. Limited resection which preserve organ function, is indicated for patients with benign or borderline malignancies. However, some diseases such as invasive pancreatic cancer, gallbladder cancer, hilar and intrahepatic cholangiocarcinoma are still associated with dismal long-term prognosis. Therefore, both medical and surgical oncology groups as an integrated clinical activity collectively treat the hepatobiliary and pancreatic tumors. As a result, our treatment regimens have developed in close co-operation with medical oncologists and radiologists.

Routine Activities

This division includes five attending surgeons, two chief residents, and four to five residents. The out patients clinic is open 5 days a week. We have staff meetings 3 times a week, and discuss the treatment strategies from medical and surgical points of view. We have a case conference of imaging diagnosis on every Tuesday in co-operation with radiologists and medical oncologists, and a monthly pathologic conference with pathologists.

Treatment strategy for HCC is based on number of lesions, tumor size and liver function. Surgical treatment is feasible in patients with relatively good liver function (Child-Pugh: A or B). However, there are many treatment modalities for HCC, such as PEI, RFA, TACE, HAI, Radiation, and systemic chemotherapy. We decided the optimal treatment by discussion with medical oncologist and radiologist. We believe that hepatectomy is the most effective for achieving local control in those having tumor over 30 mm or located the peripheral area of the liver, if the liver function tolerates the hepatic resection.

The prognosis for patients with pancreatic cancer is dismal, and standard therapeutic strategy is not yet established. Although surgical resection offers the only hope of long-term survival, it is clear that additional therapy is needed. In order to improve the treatment results, IORT had been indicated to the patients in addition to the surgical resection, but efficacy of IORT is still controversial. Therefore, we conducted a multi-institutional prospective randomized trial, comparing therapeutic efficacy between surgery alone and that with IORT. The patients with resectable pancreatic cancer are preoperatively randomized into the IORT group or surgery alone group. The former group received IORT (25Gy) to the tumor bed after curative resection. On the other hand, we have been moving to less invasive surgery, such as duodenum-preserving pancreas head resection, local resection of inferior head of the pancreas and partial pancreatic resection, for the patients with borderline malignancies and benign tumors (intraductal papillary-mucinous neoplasm, solid-pseudopapillary tumor and endocrine tumor).

In biliary tract cancer, we perform surgical therapy for the patients without distant metastases. We think that extended hepatic resection is necessary for the patients with gallbladder cancer and hilar cholangiocarcinoma. In the patients with advanced gallbladder cancer, we perform systematic S4a+5 hepatectomy or extended right hepatectomy. In those with hilar cholangiocarcinoma, we perform right or left hepatectomy with resection of the caudate lobe. In those with disease requiring more than a right hepatectomy, percutaneous transhepatic portal embolization (PTPE) is performed before the surgery.

Since the beginning of our hospital, we have aggressively performed hepatic resection for liver metastasis from colorectal cancer. Extended lobectomy plus partial resection is considered as the

upper limit of hepatectomy. Recently, systemic chemotherapy for colorectal cancer has been advanced. Therefore, we start adjuvant chemotherapy using 5-FU, folic acid and oxaliplatin after hepatectomy for liver metastasis on pilot study.

New Development in 2005

Although there are many imaging techniques to evaluate the extension of extrahepatic cholangiocarcinoma, direct cholangiography (PTC, ERCP) remains the gold standard of preoperative examination. However, direct cholangiography is associated with a considerable complication rate of

up to 10%. There is a clear need for a less invasive, safe, and highly sensitive diagnostic procedure. Recently, multi-detector row CT (MD-CT) has been introduced into clinical practice. MD-CT collects volumetric data that lead to improved 3D assessment of the biliary tree. We start the multi-institutional prospective study which evaluates the usefulness of MD-CT for preoperative diagnosis of the cancerous extension in extrahepatic cholangiocarcinoma.

● J. Furuse ●

Number of operation cases in recent 5-years

	2001	2002	2003	2004	2005
HCC	68	56	67	69	70
CCC	2	4	3	5	6
Liver metastasis	55	64	54	61	55
Biliary tract	26	23	29	28	35
Pancreas	36	30	35	41	39
Others	27	33	26	18	16
Total	214	210	214	222	221