

Hepato-Biliary-Pancreatic Surgery

1. Staffs and Students (April, 2010)

Professor	Shigeki Arie	
Associate Professor	Shinji Tanaka	
Assistant Professor	Noriaki Nakamura,	Takumi Irie,
	Atsushi Kudo,	Norio Noguchi,
	Daisuke Ban	
Tokunin Assistant Professor	Yasen Mahmut	
Graduate Student	Yusuke Mitsunori ,	Satoshi Matsumura,
	Ayano Murakata,	Rama Adikrisna,
	Kenichiro Yoshitake,	Syunsuke Muramatsu,
	Chisato Okajima,	Kouta Sato,
	Kousuke Ogawa,	Yuichiro Watanabe
	Toshiro Ogura,	Tomoya Miura
	Xirali Mamat,	Maynur Abdurahman

2. Educational Vision

Medical School Education: Our mission is to educate students and transform them into high quality surgeons. Leading edge training, from basic to advanced, is provided through one-on-one interaction with advisers. Furthermore, students, as medical professionals, learn how to interact with patients, and establish strong ethics and morals. Especially, in regard to breaking bad news, students learn by dealing with real cases. While students mainly acquire surgical techniques during post-graduate clinical internships, their interest in surgery is nurtured through medical education.

Post-graduate Education: Our mission is to cultivate the capability of students as surgeons and physicians, in order to provide the highest quality patient care. Each student is expected to obtain a specialization in surgery within 5 or 6 years after graduation from medical school. During post-graduate education, we provide incentives for students to become excellent surgeons, conduct original medical research, and allow them to demonstrate their capability in the real world.

3. Research

We are making researches in the important issues which are remained to be resolved in the hepato-biliary-pancreatic surgery and diseases. The research subjects are as follows;

- 1) Research in the molecular mechanisms on the progression of hepato-biliary-pancreatic malignancies
- 2) Research in development of the molecular-targeting therapy for hepato-biliary-pancreatic malignancies.
- 3) Research in the extended indication of the hepatic resection for hepato-biliary malignancies.
- 4) Research in the transporter for bile metabolism
- 5) Research in the improvement of liver preservation
- 6) Research in the microcirculation of the liver
- 7) Research in immunological tolerance for organ transplantation
- 8) Research in technical improvement of laparoscopic surgery

4. Clinical practice

The major diseases we treat are those of liver, biliary tract including gallbladder, pancreas, and spleen, particularly malignant diseases of those organs. Especially, our mission is to treat advanced cancers with multidisciplinary strategy although our mainstay is surgical method. Living liver transplantation is also undertaken for end-stage liver diseases. Laparoscopic surgery is applied to neoplastic diseases as well as benign diseases from the viewpoint of less invasive surgery. The malignant cases we resected were 190 in 2010, which was ranked as one of the leading high-volume centers of our country.

5. Publications

Original Article

1. Tanaka S, Mogushi K, Yasen M, Noguchi N, Kudo A, Nakamura N, Ito K, Miki Y, Inazawa J, Tanaka H, Arie S. Gene

- expression phenotypes for vascular invasiveness of hepatocellular carcinomas. *Surgery* 147:405-414, 2010.
2. Aihara A, Tanaka S, Yasen M, Matsumura S, Mitsunori Y, Murakata A, Noguchi N, Kudo A, Nakamura N, Ito K, Arii S The selective Aurora B kinase inhibitor AZD 1152 as a novel treatment for hepatocellular carcinoma. *J Hepatology* 52:63-71 2010.
 3. Furuta M, Kozaki KI, Tanaka S, Arii S, Imoto I, Inazawa J. miR-124 and miR-203 are epigenetically silenced tumor-suppressive microRNAs in hepatocellular carcinoma. *Carcinogenesis* 31:766-776, 2010.
 4. Nakanishi K, Tsujimura T, Nishigami T, Kudo A, Arii S, Nishiguchi S. Crucial role of impaired Kupffer cell phagocytosis on the decreased Sonazoid-enhanced echogenicity in a liver of a nonalcoholic steatohepatitis rat model. *Hepatology* 40(8):823-831, 2010.
 5. Tsuji K, Yasui K, Gen Y, Endo M, Dohi O, Zen K, Mitsuyoshi H, Minami M, Itoh Y, Taniwaki M, Tanaka S, Arii S, Okanoue T, Yoshikawa T. PEG 10 is a probable target for the amplification at 7q21 detected in hepatocellular carcinoma. *Cancer Genet Cytogenet* 198:118-125, 2010.
 6. Takayasu K, Arii S, Ikai I, Kudo M, Matsuyama Y, Kojiro M, Makuuchi M; Liver Cancer Study Group of Japan Overall survival after transarterial lipiodol infusion chemotherapy with or without embolization for unresectable hepatocellular carcinoma ; Propensity Score Analysis. *Am J Roentgenol* 194:830-837, 2010.
 7. Uchida U, Tanaka S, Aihara A, Adikrisna R, Yoshitake K, Matsumura S, Mitsunori Y, Murakata A, Noguchi N, Irie K, Kudo A, Nakamura N, Lai PB, Arii S. Analogy between sphere forming ability and stemness of human hepatoma cells. *Oncology Reports* 24:1147-51, 2010.
 8. Sui S, Kudo A, Suematsu M, Tanaka S, Nakamura N, Ito K, Arii S. Preservation solutions alter mrp2-dependent bile flow in cold ischemic rat livers. *Journal of Surgical Research* 159(1):572-581, 2010.
 9. Yoshikawa S, Iijima H, Saito M, Tanaka H, Imanishi H, Yoshimoto N, Yoshimoto T, Futatsugi-Yumikura S, Nakanishi K, Tsujimura T, Nishigami T, Kudo A, Arii S, Nishiguchi S. Crucial role of impaired Kupffer cell phagocytosis on the decreased Sonazoid-enhanced echogenicity in a liver of a nonalcoholic steatohepatitis rat model. *Hepatology* 40(8):823-31, 2010.
 10. Ban D, Shimada K, Sekine S, Sakamoto Y, Kosuge T, Kanai Y, Hiraoka N. Pancreatic ducts as an important route of tumor extension for acinar cell carcinoma of the pancreas. *Am J Surg Pathol* 34(7):1025-36, 2010.

Review Article

1. Tanaka S, Arii S. Medical treatments; in association or alone, their role and their future perspectives: Novel molecular targeted therapy for hepatocellular carcinoma. *J Hepatobiliary Pancreat Sciences* 17:413-419, 2010.
2. Arii S. Molecularly targeted therapy for hepatocellular carcinoma from the basic and clinical aspects. *Int J Clin Oncol* 15:234, 2010.
3. Tanaka S, Arii S. Current status of molecularly targeted therapy for hepatocellular carcinoma.: basic science. *Int J Clin Oncol* 15: 235-241, 2010.
4. Arii S, Sata M, Sakamoto M, Shimada M, Kumada T, Shiina S, Yamashita T, Kokudo N, Tanaka M, Takayama T, Kudo M. Management of hepatocellular carcinoma: Report of Consensus Meeting in the 45th Annual Meeting of the Japan Society of Hepatology. *Hepatology* 40:667-685, 2010.
5. Arii S, Tanaka S, Mitsunori Y, Nakamura N, Kudo A, Noguchi N, Irie T. Surgical strategies for hepatocellular carcinoma with special reference to anatomical hepatic resection and intraoperative contrast-enhanced ultrasonography. *Oncology* 78(suppl 1): 125-130, 2010.

Case report

1. Sugiyama T, Kouyama R, Tani Y, Izumiyama H, Akashi T, Kishimoto S, Arii S, Hirata Y Giant malignant insulinoma which developed from a nonfunctioning pancreatic tumor over a long period of time. *Internal Medicine* 49:1573-1579, 2010.
2. Ochiai T, Igari K, Kumagai Y, Iida M, Yamazaki S. Education and imaging. Gastrointestinal: massive portal venous gas and pneumatosis intestinalis. *J Gastroenterol Hepatol* 25(6):1178, 2010.
3. Ban D, Sakamoto Y, Shimada K, Kosuge T, Sekine S, Taniguchi H. Erythropoietin production caused by metastatic colon cancer. *Int J Colorectal Dis* 25(3):405, 2010.

International Presentation

1. Ochiai T, Igari K, Kumagai Y, Iida M, Matsumoto A, Kumada Y, Shinohara Kazuak, Yamazaki S. TREATMENT STRATEGY OF BLUNT HEPATIC TRAUMA: EXPERIENCE FROM A SINGLE CRITICAL CARE AND

- TRAUMA CENTER IN JAPAN.5th Annual Academic Surgical Congress, San Antonio, Texas, 2010.25.
2. Tanaka S, Mogushi K, Mahmut Y, Noguchi N, Irie T, Kudo A, Nakamura N, Inazawa J, Tanaka H, Arii S. Gene expression signature of the non-cancerous liver tissue associated with the early recurrence of hepatocellular carcinoma. 101st AACR Annual Meeting 2010. Washington,DC, America, 2010.4.19. (Poster presentation)
 3. Takamatsu S. A case report of the carcinoma in adenoma of the intrahepatic bile duct. 9st AAWorld Congress of International Hepato-Pancreato-biliary association 2010. Buenos Aires, Argentina, 2010.4.21. (Poster presentation)
 4. Ochiai T, Ohta S, Tsukamoto K, Yagi M, Igari K, Aihara A, Kumagai Y, Iida M, Yamazaki S. A new method of intraoperative endoscopy for small intestinal bleeding. Asian pacific digestive week 2010, Kuala Lumpur, Malaysia,2010.9.20
 5. Ochiai T, Igari K, Nishizawa M, Kumagai Y, Iida M, Yamazaki S. A case report of massive portal venous gas and pneumatosis intestinalis. Asian pacific digestive week 2010, Kuala Lumpur, Malaysia,2010.9.21
 6. Ochiai T, Igari K, Nishizawa M, Yagi M, Kumagai Y, Iida M, Yamazaki S. Is chemoradiotherapy effective in invasive intraductal papillary mucinous neoplasm (IPMN)? - a case report of invasive IPMN - . Asian pacific digestive week 2010, Kuala Lumpur, Malaysia,2010.9.21
 7. Ochiai T, Yagi M, Igari K, Ito H, Aihara A, Kumagai Y, Iida M, Odajima H, Yamazaki S. Heterotopic pancreas presenting as tumor of Vater papilla. Asian pacific digestive week 2010, Kuala Lumpur, Malaysia,2010.9.21
 8. Ochiai T, Igari K, Furuyama T, Kasai R, Kumagai Y, Ohta K, Iida M, Yamazaki S. A case report of aggressive treatment for transverse colon carcinoma with metachronous liver and spleen metastases. Asian pacific digestive week 2010, Kuala Lumpur, Malaysia,2010.9.22
 9. Ochiai T, Masuda T, Igari K, Ito H, Aihara A, Kumagai Y, Iida M, Odajima H, Yamazaki S. Curative resection of a huge malignant pancreatic endocrine tumor. - achieved by pancreatoduodenectomy with portal and superior mesenteric vein resection and reconstruction using the right ovarian vein -. Asian pacific digestive week 2010, Kuala Lumpur, Malaysia,2010.9.22
 10. Arii S and Mitsunori Y. Utility and standardization of contrast-enhanced intraoperative ultrasonography for liver surgery.12th International Symposium on ultrasound contrast imaging,2nd Asian Conference on ultrasound contrast imaging, 2010.12.11.