

cation after organ transplantation which requires immunosuppressive therapy. Posttransplant immunosuppressive medications result in decreased immune surveillance against malignant cells and increase the risk of malignancies mediated by various viruses. In this study, we tried to investigate the incidence patterns and treatments of de novo malignancy after liver transplantation (LT), especially mainly after living donor liver transplantation.

**Methods:** Between August 1992 to December 2008, 2174 LT were performed, living donor liver transplantation cases were 1879 and deceased donor liver transplantation cases were 295.

**Results:** Among them, 35 patients (1.6%) revealed de novo malignancies. In this single-center series, the incidence rate of de novo malignancy was rather low (1.6%). The patterns of de novo malignancy were also different from those in western countries. The common malignancies were stomach cancer and colon cancer in this series, but skin cancer, lymphoma and lung cancer were more common in western countries.

**Conclusion:** In our institution, posttransplant periodic checkup was done in every 1-year basis, especially focused on common malignancies in Korea. The periodic checkup list always includes gastrofiberscopy for early detection of stomach cancer. The common malignancies usually occur in transplant patients at an earlier age than in the general population. Thus yearly screening checkup may be beneficial regardless the age of liver recipients.

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### Mechanical Ileus Associated Feeding Jejunostomy after Liver Transplantation

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**Background:** There are many complication associated with feeding jejunostomy with liver transplantation. Mechanical ileus is also often seen after the feeding jejunostomy after liver transplantation. Three different

patterns of complication in the patients with mechanical ileus after the feeding jejunostomy after liver transplantation can be introduced.

**Patients and Methods:** We reviewed the cases of three patients; first a 62-year-old woman who presented with toxic hepatitis and received living liver transplantation, second a 68-year-old woman who presented with acute on chronic HBV hepatitis and received living liver transplantation emergently and, third a 16-year-old woman who presented with toxic hepatitis on the drug and received emergent cadaveric liver transplantation. Their medical records were retrospectively reviewed.

**Results:** One patient showed self limited recovery with hydration and restricting diet. The other patients required emergent operation. The performing of feeding jejunostomy during the liver transplantation must be considered seriously because of its urgent complication.

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### Unusual Type of Hepatic Hemangioma Mimicking Hepatocellular Carcinoma: High-Flow Pattern on MRI

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**Introduction:** The hepatic hemangiomas could be distinguished with hepatocellular carcinoma (HCC) in the point of showing bright signal intensity on un-enhanced T2-weighted imaging of MRI. However, some atypical hemangiomas, especially high-flow hemangiomas, can display rapid, intense homogeneous arterial enhancement and can show isointense or slightly hyperintense signal during the equilibrium phase of liver MRI using gadoteric acid-enhancement MRI. Therefore, these early enhancing types of hemangiomas can mimic hypervascular hepatic tumors, such as HCC. We report the case of high-flow hepatic hemangioma confused with HCC.

**Case:** A 65-year-old male presented our hospital with liver mass detected by health survey and he had no history of hepatitis and liver cirrhosis. Enhanced com-

puted tomography showed early enhancing and early washed out well marginated exophytic solid mass in left lateral segment of liver. Serum alpha-fetoprotein was within normal range and hepatitis viral marker indicated negative for viral hepatitis. This hepatic lesion was showed as slightly low signal intensity on T1 weighted imaging and heterogeneous signal intensity on T2 weighted imaging of MRI. Moreover it was well enhanced at arterial phase and washed out at delayed phase. So he was diagnosed HCC and underwent wedge resection of left lateral segment of liver. At surgery, there was 3 cm sized well marginated soft mass in the liver. Postoperative Histology and immunohistochemistry revealed that the hepatic mass was not HCC but hemangioma. The postoperative course was uneventful and he discharged 1 week after surgery.

**Discussion:** Problematic issues might occur in the differentiation of high-flow hemangiomas from HCC after gadoxetic acid-enhanced MRI if the lesion shows a pseudo washout sign. A high-flow hemangioma on gadoxetic acid-enhanced MRI could show bright signal on a T2-weighted image; a rapid, intense homogeneous or dominant portion enhancement on the arterial phase; or a pseudo washout pattern on the equilibrium phase. The pseudo washout sign was not considered a true contrast wash out as occurs in HCC. Rather, it was thought to be due to contrast uptake in the surrounding normal liver parenchyma; the lesion itself might have low signal intensity. High-flow hemangiomas should be considered when the following are observed: bright signal intensity on T2-weighted imaging, arterial-phase dominant enhancement, pseudo washout sign during the equilibrium phase, frequent perilesional arteriportal shunt, and iso-intensity or slightly increased signal intensity on the subtraction images between the unenhanced phase and the equilibrium phase.

## Hepatic Resection for Initially Inoperable Hepatocellular Carcinoma (HCC); Pretreated Hepatic Arterial Infusion of Chemotherapy (HAIC)

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**Introduction:** Treatment of advanced HCC remains a significant problem for clinicians. Numerous clinical studies have shown that HAIC provides moderate therapeutic efficacy with substantially favorable toxicity profiles in selected patients groups with advanced HCC. We present our experience of two patients with initially inoperable advanced HCC who underwent hepatic resection after pretreated HAIC.

**Case Report:** First case was 45 year old man who had multiple HCC with portal vein tumor thrombus (PVTT) in both lobes of liver at Dec. 2009. From Jan. 2010 to Jun. 2010, HAIC with 5-FU, mitomycin, epirubicin was performed six cycles and transarterial chemoembolization (TACE) once. At Jan. 2011, he underwent partial hepatectomy uneventfully and discharged well. Second case was 51 year old woman who had huge HCC with PVTT in left lobe at Oct. 2008. She took HAIC treatment with 5-FU, cisplatin six cycles till Apr. 2009 in spite of favorable toxicity (leukopenia). Left trisectionectomy and caudate lobectomy with PVTT thrombectomy was performed successfully. Until now, there is no evidence of disease recurrence.

**Conclusions:** For initially unresectable HCC without liver cirrhosis, HAIC may be an effective treatment modality. We suggest that more clinical studies should be undertaken to explore the use of HAIC for advanced HCC patients.