

fied extended left hepatectomy was performed and the middle and left hepatic veins were reconstructed with Dacron graft and cryopreserved iliac vein during Bench-work. Supra-and infra-hepatic IVCs were clamped after meticulous dissection and total inflow occlusion was also performed with the concomitant extracorporeal veno-venous bypass. The complete thrombectomy of IVC after total hepatectomy of remnant liver with HCC was performed. The implantation of the explanted left lobe was performed by means of the technique of living donor liver transplantation. His postoperative course was uneventful except medically controlled ascites. **(Conclusion)** We introduce the new technique of liver autotransplantation after In-situ hepatectomy for huge hepatocellular carcinoma involving supr-hepatic IVC and this procedure will be valuable in selected cases in our opinion.

간담체 PP-I-6

Protective effect of SPA 0355, a thiourea analogue, on post-Ischemic liver injury in mice by inhibition of NF- κ B activation

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(Purpose) SPA 0355 has been found to be a potent NF- κ B suppressor. Liver ischemia/reperfusion injury is associated with rapid activation of NF- κ B signaling, but the role of NF- κ B in hepatic ischemia/reperfusion injury remains controversial. Here, we examined whether SPA 0355 inhibited or aggravated hepatic ischemia/reperfusion injury by mediated the NF- κ B signaling pathway. **(Methods)** We injected SPA 0355 into intraperitoneal cavity of

mice for 3 days before ischemia procedure. Mice underwent 90 min of partial hepatic ischemia by ligation of the portal vein, hepatic artery and bile duct just above the right branch and then reperfusion. **(Results)** Mice subjected to ischemia/reperfusion injury showed an increased NF- κ B activation, as evidenced by phosphorylation of I κ B α and nuclear translocation of NF- κ B subunits. As expected, prior injection with SPA 0355 mice were attenuated NF- κ B activation. In addition, serum aminotransferases, hepatocellular apoptosis and necrosis, and hepatic neutrophil infiltration were markedly decreased. **(Conclusion)** These results suggest that inhibition of NF- κ B activation by SPA 0355 prevented partial hepatic ischemia/reperfusion injury. Understanding how the NF- κ B pathway plays a role in directing a clinical outcome may lead to better prospects of more rational approaches to reduce post-ischemic liver injury.

간담체 PP-II-1

A long term survival case of hepatic metastasis of thymoma

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(Purpose) Thymoma is a neoplasm of the epithelial cells of the thymus gland, accounts for up to 40% of all mediastinal tumors. Thymoma is a slow growing tumor and its prognosis depends on its histological characteristics, infiltrative natures, extends of disease and paraneoplastic syndromes such as myasthenia gravis and pure red cell aplasia. Hepatic metastasis of thymoma is a very rare condition and its prognosis is still unknown. We experienced a long-term survival case of hepatic metastasis of thymoma and we present our case. **(Case Report)** A-57 year old women was admitted to our hospital suffering from

dyspnea, dry cough, orthopnea and leg edema for 4 months. She lost body weight of 8kg for 2 months also. She got surgery of thymectomy and post-operative radiation therapy for benign thymoma 6 years ago. Laboratory findings showed no abnormal findings except mild anemia (serum hemoglobin was 11.6 g/dl). Abdominal CT scan and MRI showed an encapsulated and septated 19x14 cm sized cystic mass at the right liver. Fine needle aspiration revealed same histological findings as previous thymoma cells. Right hepatectomy was performed and gross finding was 30x20x8 cm in size with capsulation and mucoid fluid in it. Histological findings was B2 type of thymoma without malignant cells according to WHO classification. She received a systemic chemotherapy with doxorubicin, cisplatin, vincristine and cyclophosphamide (ADOC regimen) 3 times. She is still alive without tumor recurrence for 10 years from surgical resection of hepatic metastasis of thymoma. **(Conclusion)** Conclusion: Cases of hepatic metastasis of thymoma are very rare and there are just a little reports about them. According to WHO classification, thymoma are classified into five types - A, AB, B1, B2, B3 - according to shape and atypia of their epithelial cells as well as the abundance of lymphocytes. Our case was B2 type of thymoma without malignant cells and recurrence occurred in 6 years after initial thymectomy. Because of lack of a knowledge, there is no standard treatment for hepatic metastasis of thymoma. A few papers reported that radical resection of metastatic regions, postoperative radiation therapy and systemic chemotherapy might be helpful for good prognosis of this disease, but it has controversies due to little knowledges. Our patient has a good prognosis after aggressive treatment for hepatic metastasis of thymoma but since thymoma is a very slow growing tumor, further long-term follow-up should be necessary for this case.

간담췌 PP-II-2

Signet ring cell carcinoma of the ampulla of vater: A case report

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(Purpose) Tumors of the ampulla of Vater are not common. Ampulla of Vater cancers are usually adenocarcinomas. Signet ring cell carcinoma of the ampulla of Vater is extremely rare and a few cases have previously been described in the literature. This report presents a case of advanced signet ring cell carcinoma of the ampulla of Vater, with invasion of the duodenum. **(Case report)** A 41-year-old male with icterus was referred to Eulji-General Hospital. Obstructive jaundice was diagnosed. Laboratory tests showed total bilirubin 7.5 mg/dL, direct bilirubin 5.5 mg/dL, alkaline phosphatase 420 IU/L, carcinoembryonic antigen 2.31 ng/mL and carbohydrate antigen 19-9 53.6 U/mL. Abdominal computed tomographic scan and magnetic resonance cholangiopancreatography showed dilatation of the common bile duct (CBD) and the pancreatic duct and abrupt luminal narrowing with wall enhancement in the distal CBD to ampulla. The tumor, lymph node enlargement and distant metastases were not detected by CT. Endoscopic retrograde cholangiopancreatography showed a tumor in the ampulla of Vater and histology of a biopsy revealed adenocarcinoma. Pylorus preserving pancreaticoduodenectomy and extended lymphadenectomy were performed. Macroscopically, the mucosal surface showed a polypoid tumor mass with central ulceration, measuring 2 x 1.6cm in diameter in the ampulla of Vater. On the histological sections, the cut surface of am-

pullary tumor showed a whitish tumor with pushing margin, measuring 1x1cm in diameter, which was infiltrated by a signet ring cell carcinoma. The tumor was invaded through the ampullary wall. But, the pancreas was grossly unremarkable. Two lymph nodes of retrieved 21 lymph nodes presented metastases. The ampullary carcinoma was diagnosed as T2N1M0, Stage IIA according to the International Union Against Cancer TNM classification. Postoperative recovery was good and the patient was discharged on the twenty seventh post-operative day. Adjuvant chemotherapy was administered. **(Conclusion)** We have presented a rare case of signet ring cell carcinoma in the ampulla of Vater with invasion of the duodenum. Although several cases have been reported, the detailed clinicopathological features and prognosis are not clear. Additional reports are warranted.

간담채 PP-II-3

Primary malignant peripheral nerve sheath tumor of the liver

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(Purpose) Primary malignant peripheral nerve sheath tumor (MPNST) in a young female patient, not associated with von Recklinghausen's disease is an extremely rare in the liver. We report a case diagnosis based on detailed immunohistochemical and electromicroscopic examination and its follow up. **(Case)** A 33-year old female, with a history of surgery for left ovary cystectomy, 8-years ago was admitted in suncheonhyang University Hospital in cheonan, her chief complaint was a right flank pain for a weak, on physical examination, there was no lesion on skin (ex café au lait) with neurofibromatosis type I, and laboratory data was not

specific findings. The CT scan showed with 12.5*11cm sized mass located at right lobe, and operative findings were a 20*16cm sized mass on right lobe with invasion on right diaphragm, so right hepatectomy and shaving of diaphragm was done. Histologically, on FNCLCC system, the tumor differentiation score was 3, mitotic count was 8 on 10 HPFs, necrosis was 30%. On immunohistochemistry, the tumor cells were strong positive for s-100 protein, bcl-2, vimentin. The patients discharged at POD#13 without complication and received 30-cycles, 6000cGy radiation therapy, and doing well 6-month after surgery. **(Results)** she received 30-cycles, 6000cGy radiation therapy, and doing well 6-month after surgery. **(Conclusion)** Eight cases of malignant schwannoma have been reported in the liver, its prognosis are generally poor and its associated with a highly aggressive courses of recurrence, metastases, and death but only two cases are not associated with von Recklinghausen's disease, but we first report its follow up including radiation therapy.



Fig. 1. Initial CT



Fig. 2. op+RT 후 6개월 후 CT

간담췌 PP-II-4

Middle hepatic vein reconstruction by using parietal peritoneum during hepatectomy for recurred HCC

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(Purpose) We report the case of a 32-year-old female patient with recurred HBV related HCC. Initial operation was done for the 8.7cm HCC in the left lateral lobe 3 years ago. **(Methods)** Recurred 1.8 cm HCC very closed to middle hepatic vein in S8 was removed by partial hepatectomy. Main middle hepatic vein was removed partially, then parietal peritoneum patch was used for reconstruction for middle hepatic vein. **(Results)** The patency of middle hepatic vein was intact and there was also no tumor recurrence after 6 months. **(Conclusion)** By using the parietal peritoneal patch graft, tumor resection margin and preservation of main hepatic vein could be achieved easily.

간담췌 PP-II-5

1 case of ALPPS for initially unresectable multiple and bilobar synchronous colorectal liver metastases

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(Purpose) Associating liver partition and portal

vein ligation for staged hepatectomy (ALPPS) has been recently devised to improve resectability and to minimize the risk of liver failure **(Methods)** We reports a case of associating liver partition and portal vein ligation for staged hepatectomy (ALPPS) and low anterior resection simultaneously for initially unresectable multiple and bilobar synchronous colorectal liver metastases **(Results)** A 64-year-old male, with rectal cancer and initially unresectable multiple hepatic metastases received 8 cycle neo-adjuvant chemotherapy with FOLFOX regimen. after 6 month, we performed the procedure in two steps. During the first operation, two wedge resection of metastatic nodules in the left liver, right portal vein ligation and in situ splitting as a right hepatectomy were performed. A CT scan on POD 7 showed FLR hypertrophy. At POD 12, complete right hemihepatectomy and low anterior resection (for rectal cancer) was performed simultaneously. Postoperative course was uneventful and patient was discharged at POD 23 **(Conclusion)** ALPPS can be a feasible and safe treatment option to provide curative resection to unresectable patients with multiple and bilobar colorectal liver metastases because of insufficient volume of FLR

간담췌 PP-II-6

Meaning of hepatic venous pressure gradient in patients with hepatocellular carcinoma

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(Purpose) Hepatic venous pressure gradient (HVPG) was introduced as important prognostic

marker in patients with hepatocellular carcinoma underwent liver resection. However, this procedure did not performed routinely due to invasive technique. This study investigated the meaning of pretreatment hepatic venous pressure gradient and compared HVPG with other non-invasive and indirect markers of portal hypertension. **(Methods)** We prospectively measured HVPG in patients with cirrhosis. After HVPG measurement, 29 patients with hepatocellular carcinoma underwent treatment were enrolled in this study. We identified short-term outcomes according to the HVPG and clinical portal hypertension and analyzed correlation between HVPG and other markers. Additionally, we investigated the prognostic factors for high grade complication. **(Results)** Median HVPG was 11mmHg (range 4-28) and fibroscan result was 19.5k kPa (4.1-75). Twenty one patients showed evidence of clinical portal hypertension. Eight, Eight and twelve patients underwent liver resection, radiofrequency ablation (RFA) and transcatheteric arterial chemoembolization (TACE), respectively. Two, seven and twelve patients showed HVPG more than 10 mmHg in liver resection, RFA and TACE group, respectively. High grade complications were only developed in RFA and TACE group. Treatment modality was not prognostic factor for high grade complication. The only esophageal varix was found as significant prognostic factor in multivariate analysis. **(Conclusion)** Although our study has a limitation of small case number, curative treatment modalities including liver resection and RFA may be applied to patients with portal hypertension who did not develop esophageal varices.

간담채 PP-III-1

Intrahepatic cholangiocarcinoma: A Single-institution Twelve-Year experience with 144 cases

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(Purpose) Intrahepatic cholangiocarcinoma (ICC) is a rare primary malignant disease of liver. And surgical treatment is the only known cure for the disease. In this study, we examine the impact factor of tumor recurrence and recurrence pattern of tumor according to the tumor location of liver and nodal status. And we were investigated prognostic factors of ICC which influence the survival. **(Methods)** We reviewed the medical records of 144 patients diagnosed with intrahepatic cholangiocarcinoma from January 1995 to November 2012 retrospectively. Patient and tumor characteristics including oncologic outcomes were analyzed. **(Results)** Eighty-nine patients were male and 55 were female, with a mean age of 62.51±9.8 years. During the follow up period 78 (54.1%) patients were recurrence of ICC. The median disease free survival (DFS) was 57.6 months. And the median overall survival (OS) was and 57.7 months and the 1-, 3-, 5 year survival rate were 68%, 57%, 43% respectively. In univariate analysis, pTNM Stage (p=0.070), pN stage (0.000), pathologic Tumor size (pTS) (p=0.035), perivascular invasion (PVI) (0.025), intrahepatic metastasis (iHM) (0.001), satellite nodule (0.01) were statistically significantly correlation of DFS. But in multivariate analysis, only pN stage (0.029) was statistically significant correlation of DFS. And In univariate analysis, pTNM stage (p=0.005), pN stage (0.000), satellite nodule (0.000) were statistically significantly correlation of OS. But in multivariate analysis, pN stage (p=0.009), satellite