**0-011**

Expression of Ribosomal Protein S23 in Hepatocellular Carcinoma Tissue as Good Prognostic Marker

Chan Ran You,1,2 Myeong Jun Song,1,2 Chan Kwon Jung,3 Sung Woo Hong,1,2 WonHee Hur,1,2 Sang Wook Choi,1,2 Si Hyun Bae,1 Jong Young Choi,1,2 Seung Kew Yoon1,2

1Catholic Liver Research Center, College of Medicine, The Catholic University of Korea, Korea, 2Hospital Pathology, College of Medicine, The catholic University of Korea, Korea

**Background:** Ribosomal proteins (RP) involve in the regulation of apoptosis and carcinogenesis. In recent studies of RP in hepatocellular carcinoma (HCC), the overexpression of ribosomal protein L12, L27, L30 and L36 was found. We aimed to investigate the expression of ribosomal protein S23 (RPS23) and its effect on prognosis in postoperative HCC patients.

**Methods:** Liver tissues were obtained 63 patients who had undergone curative resection for HCC. We enrolled the patients with early tumor stage (≤ UICC stage III) and good liver function (≤ Child Pugh score 6). The expressions of RPS23 in tumor tissue and non-tumor tissue were examined by immunohistochemical staining. Analyses for survival and recurrence were done between tumor RPS23 (t-RPS23) expression group and non-expression group.

**Results:** RPS23 was expressed in 34 patients (54.0%) on tumor tissue and 8 patients (13.1%) in Non-tumor tissues (P=0.016). The patients were grouped according to the expression of RPS26 in tumor tissue. Basal characteristics were not different between t-RPS23 positive and negative group. The three years and five years survival rate was higher in t-RPS23 positive group (90.2% vs. 65.8% of 3 year survival rate, P=0.007, 86.1% vs. 55.7% of 5 year survival rate, P=0.010). On multivariate analysis, t-RPS23 expression (HR 10.95, P=0.004) and tumor number (HR 9.71, P=0.001) were independent prognostic factors for 3 year and 5 year survival. Tumor recurrence during one year after resection was relatively low in t-RPS23 positive group, but not statistically significant (17.8% vs. 36.0%, P=0.084). However, on multivariate analysis, t-RPS23 expression (HR 4.18, P=0.021) and serosa invasion (HR 4.15, P=0.019) were independent factors for 1 year tumor recurrence.

**Conclusions:** The RPS23 expression of HCC patients was higher in tumor tissue than in non-tumor tissues. The RPS23 expression in tumor tissue was good prognostic marker for resected HCC. RPS23 may be associated with good oncogene to have paradoxical function in HCC.

**Keywords:** Ribosomal protein S23, Ribosomal protein, Hepatocellular carcinoma, Resection

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**0-012**

Correlation between Enhancement Pattern of Hepatocellular Carcinoma on Real-time Contrast-enhanced Ultrasonography and Tumor Cellular Differentiation on Histopathology: Prospective Preliminary Study

Woong Cheul Lee1, Jae Young Jang1, Jin Nyoun Kim1, Soung Won Jeong1, Eui Ju Park1, Byoung Moo Lee1, Yun Nah Lee2, Sae Hwan Lee2, Sang Gyune Kim3, Sang-Woo Cha1, Young Seok Kim1, Young Deok Cho1, Hong Soo Kim2, Boo Sung Kim1

Institute for Digestive Research, Digestive Disease Center, Department of Internal Medicine, College of Medicine, Soonchunhyung University, Korea1, Department of Internal Medicine, College of Medicine, Soonchunhyung University, Korea1, Department of Internal Medicine, College of Medicine, Soonchunhyung University, Korea1

**Background:** The objective of this study was to evaluate the correlation between the enhancement pattern of hepatocellular carcinoma (HCC) on contrast-enhanced ultrasonography (CEUS) and tumor cellular differentiation on histopathology.

**Methods:** Twelve patients with HCC underwent hepatic resection and liver biopsy were prospectively evaluated with CEUS and histopathological examination. CEUS was performed with Sonovue® and contrast pulse sequencing. Histopathological diagnosis were made according to the Edmonson grading system.

**Results:** Significant differences were shown between the time that the HCC became isoenhancing in PV (portal-venous) phase and tumor cellular differentiation (well differentiation vs. moderate to poor differentiation: 33 sec (31, 37.5) vs. 70 sec (64, 80), median (IQR)) (P=0.03), but not with the time of commencement of hyperenhancing or commencement of hypoenhancing in arterial phase and late phase (P=0.343, P=0.149).

**Conclusions:** The timing of HCC becoming isoenhancing on CEUS is correlated with tumor cellular differentiation; well differentiated tumors wash out more early than moderate or poorly differentiated ones.

**Keywords:** Contrast-enhanced ultrasonography (CEUS), Hepatocellular carcinoma (HCC), Tumor cellular differentiation

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**0-013**

Development and Validation of a Korean Model to Estimate Survival in Ambulatory Patients with Hepatocellular Carcinoma (K-MESIAH)

Byung Ho Nam1, Joong-Won Park2, Sook-Hyang Jeong3, Sang Soo Lee3, Hee-Won Kwak3, Ami Yu4, Bo Hyun Kim5, W. Ray Kim4

1Biometric Research Branch, 2Center for Liver Cancer, National Cancer Center, Korea, 3Department of Internal Medicine, Seoul National University Bundang Hospital, Seoul National University, College of Medicine, Korea, 4Division of Gastroenterology and Hepatology, Mayo Clinic Col-

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