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A PILOT STUDY OF TRANSCATHETER ARTERIAL INTERFERON-EMBOLIZATION (TAIE) FOR HEPATOCELLULAR CARCINOMA. MF Yuen[1], C Ooi[2], WM Wong[1], OO Chan[1], BCY Wong[1] and CL Lai[1]. Department of Medicine[1] and Department of Diagnostic Radiology[2], The University of Hong Kong, Queen Mary Hospital , Hong Kong

Background: Interferon-alpha (IFN-α) is effective in a 30% of patients with hepatocellular carcinoma (HCC) when given systemically using extremely high doses thrice weekly (Lai CL et al, Hepatology 1993). However, the side effects were severe and the cost was high. Regional therapy through the transarterial route would concentrate the IFN-α on the tumor cells, reduce the systemic side effects and require only one dose of IFN-α every 2-3 months. We conduct a pilot study of transcatheter arterial interferon-embolization (TAIE), using IFN-α2b and gelfoam, for the treatment of HCC to define the optimal dose and safety of IFN-α. **Patients and methods**: To date, a total of 13 patients with biopsy-proven HCC (M:F 11:2, median age 61 yrs) were recruited. Patients were randomized to receive IFN-α2b 10MU/m^2 (3 patients), 30MU/m^2 (8 patients) or 50 MU/m^2 (2 patients) intraarterially. The complete blood count, liver function tests, prothrombin time and alpha-fetoprotein (AFP) were monitored. The treatment was given every 8 weeks. The side effects were closely monitored. **Results**: The median follow-up was 4 mths (range 1-12 mths). The mean diameter of HCC was 9.9 cm (range 3.5-22 cm). A total of 29 sessions of TAIE were performed. For the 12 patients with baseline AFP > 20 ng/ml, all had a reduction of AFP after each session of TAIE. 3/12 (25%) patients had normalization of AFP. The median AFP levels dropped from 720 ng/ml to 365 ng/ml (p=0.0747). 8 patients received 2 or more sessions of TAIE in whom the tumor response was assessed angiographically. 3/8 (37.5%) patients had ≥ 50% reduction in size of the index tumors, 4/8 (50%) patients had static tumors and 1 (12.5%) patient had progressive tumors. In 3/8 (37.5%) patients the tumors became avascular angiographically and were assessed as totally necrotic. 5 patients died (median survival 6 months): 2 of uncontrolled HCC, 1 of brain metastasis, 1 of tumor lysis and 1 of ruptured HCC. The side effects included rigor usually lasting only 1-2 hrs, and fever (median 6 days; range 0-21 days). There was no deterioration of liver function tests and prothrombin time attributable to IFN-α. **Conclusion**: TAIE was effective in suppressing HCC. There was no liver decompensation. The main side effect was fever. More long-term studies are required to assess the efficacy. *This study was supported by Schering-Plough Corporation*

G-GH-4

SIGNIFICANCE OF HBSAG SEROCLEARANCE IN CHINESE PATIENTS WITH CHRONIC HEPATITIS B VIRUS (HBV) INFECTION

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Background: Loss of HBsAg is rare in Chinese with HBV infection since childhood. The clinical significance is unknown. **Aim:** To study the liver function tests (LFT), HBV DNA levels and clinical outcome of patients with HBsAg seroclearance. **Patients and Methods:** 63 Chinese with chronic HBV infection and subsequent loss of HBsAg [M:F 42:21, median age 42 yrs (range 3–75.4 yrs), median follow-up 89.9 months] were studied. 63 HBV patients who did not lose serum HBsAg matched for age, sex and HBeAg status were chosen for comparison. **Results:** The median age of HBsAg seroclearance was 47.14 yrs (4.3–84.7 yrs). 4 patients had prior interferon therapy. There was no significant difference in the LFT on presentation between those who lost HBsAg and those who did not lose HBsAg. In the 15 patients positive for HBeAg on presentation, albumin, ALT and AST improved after HBeAg seroconversion (46 vs. 45 g/L, p=0.041; 20 vs 276 U/L, p=0.001; 23 vs 210 U/L, p=0.001 respectively compared to the levels on presentation). ALT and AST further improved after HBsAg seroclearance (12 vs. 20 U/L, p=0.004; 17 vs. 23 U/L, p=0.008). In the 48 patients positive for anti-HBe on presentation, ALT improved after HBsAg seroclearance compared with the levels on presentation (20 vs. 22 U/L, p=0.02). After HBsAg seroclearance, HBV DNA levels were below the limit of detection in 26/39 (66.7%), between 0.5-1 pg/ml in 12/39 (30.8%) and 38.15 pg/ml in one patient. 7/63 (11.1%) had biochemical, ultrasonographic and/or histologic evidence of cirrhosis, all detected before HBsAg seroclearance. One patient with ascites before HBsAg seroclearance continued to have worsening ascites. Another developed hepatoma 20 months after HBsAg seroclearance. **Conclusions:** LFT on presentation were not of predictive value for HBsAg seroclearance. Albumin, ALT and AST improved after HBeAg seroconversion and further improved after HBsAg seroclearance. The majority of the patients who lost HBsAg had low levels of viraemia. Cirrhosis developing before HBsAg seroclearance would continue to progress.