Primary Neuroendocrine Tumor of Liver

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Introduction: Term "carcinoid" is a generic name for tumors derived from neuroendocrine cells and was first coined by Oberndorfer in 1907. Ninety per cent of carcinoid tumors occur within the gastrointestinal tract, most commonly in the appendix and the terminal ileum. The liver is a common site for carcinoid metastases. Conversely, primary hepatic carcinoid tumor is a very rare entity, with fewer than 60 cases reported in the English language literature. Most of these are single case reports, although 4 series, of 6 patients, 5 patients, 4 patients, and 3 patients have been published. The diagnosis of primary hepatic carcinoid tumor is based principally on the histopathological confirmation of carcinoid tumor and the exclusion of a nonhepatic primary tumor. This requires preoperative imaging but most importantly a thorough laparotomy and rigorous follow-up. The suggested diagnostic process is outlined in the flow diagram.

Case Presentation: A 63-year-old male was referred for incidentally detected liver mass without non- specific symptom. He has been exposed to the defoliant at Vietnam War and worked as a house painter. Laboratory results including tumor markers were within normal range. Abdominal CT scan and MRI showed a 7.2×4.4 cm sized mass with intense enhancement on arterial phase and delayed persistent enhancement in S6. And another multiple amorphous low attenuated lesions were found on both lobes of liver. Diagnostic laparoscopy showed multiple bluish cystic lesions on the surface of liver. Percutaneous liver biopsy was performed and two different samples were taken from the mass and one of the multiple low attenuated lesions respectively. Pathologic results were angiosarcoma and PH respectively. We performed TACE and RT for the treatment of PAL instead of surgical resection because we were not confident of the safety of hepatic resection in the presence of multiple PH in the transection line of liver. The follow-up image study (MRI, PET-CT) 4 months after TACE and RT showed marked decrease of previous PAL lesion.

Discussion: Surgical hepatic resection is the optimal treatment for PAL if resectable. In our case, the PAL mass itself was resectable by hepatectomy, but there was a undetermined risk of intraoperative bleeding because of the need for transection through multiple PH during the parenchymal dissection. Several cases about the hepatic resection including PH have been reported. However there was no available reference about the safety or risk of bleeding for the transection of multiple PH during hepatectomy in the literatures.