Ablation Therapy for Hepatic Epithelioid Hemangioendothelioma

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Keywords
Ablation; Hemangioendothelioma; Therapy

Abbreviations
AFP: Alpha-Fetoprotein; CEA: Carcinoembryonic Antigen; TAE; MWA: Microwave Ablation; RFA: Radio Frequency Ablation

Background
Hepatic Epithelioid Hemangioendothelioma is rare all over the world. There few effective strategies for it. Single lesion can be performed by resection. Hepatic transplantation is another effective treatment way for extensive epithelioid hemangioendothelioma. In our institution, one patient was treated by interventional therapy with good response.

Case Study
A 48-year-old male patient was referred to our department with liver lesions without hypodynamia, nausea, vomiting and wasting in October 2018. He got checkup one month ago. He had no special past illness. He had no family history of cancer. On physical examination, there were no abnormal. Abdomen enhanced Computer Tomography image showed that: there were multiple lesions in liver, among them; the biggest one was 39 mm × 36 mm, CT value was 33 Hu. Cycling enhancement style in artery phase. The enhancement area became bigger in venous phase (Figure 1). Contrast enhanced ultrasound showed: multiple metastasis lesions in liver. Investigations revealed normal AFP (2.25 ng/mL) and CEA (2.68 ng/mL), the other laboratory findings had no significance. PET-CT showed high hyper metabolism lesions, delay phase showed enhanced more, malignant lesions. Fine needle liver biopsy showed (2018.10.17): neoplastic cell infiltrated in loose fibrous tissue, the neoplastic cells are epithelial-like, arranged in cavities partially, hyperchroma.

Figure 1: CT showing multiple nodular lesions scatters in different segments of liver. The margin is enhanced. There are arteries in them.

Figure 2: Angiography of epithelioid hemangioendothelioma.
of the nucleus, mild abnormality. The immune histochemical study showed: HBsAg (-), HBeAg (-), Hepa and GPC-3 were negative, while CK19 was bile ducts positive, CD34 was double positive, proliferative index was low (Ki67:10%), P53 was mutation type, CK7 was positive. The diagnosis was hepatic epithelioid hemangioendothelioma. TAE (2018.10.31 see Figure 2)) and MWA (2018.11.14) RFA (2018.11.21) were performed subsequently. The lesions were ablated completely with 5 mm security margin. Protect hepatic medicine was administrated. After several days later, the patient was discharged without complications.

3 months later, follow-up abdomen enhanced CT findings approved no recurrence. The interval checkup would be obeyed every 3 months (Figure 3).

**Discussion**

Hepatic epithelioid hemangioendothelioma was a rare disease (the prevalence is 1/1,000,000). The etiology was unknown. The clinical syndrome was non-specific. It was a low to intermediate malignant lesion with low survival rate (the 5-year survival rate was 50%). The prognosis was poor and the patient was usually dead with disease within 2 years. The optimal treatment was surgical resection if possible. Target, immune or chemotherapeutic were administrated such as thalidomide, interferon, apatinib, sorafenib, pazopanib, sirolimus and different chemotherapy regimens (carboplatin, paclitaxel, and bevacizumab; carboplatin and etoposide; Adriamycin, dacarbazine, and ifosfamide; cyclophosphamide, adriamycinandvincristine; bevacizumab and nab-paclitaxel).

Orthotopic liver transplantation was performed in many cases. The outcome was effective. For young-aged patients with big bulk lesion in liver, transplantation was recommended even metastasis exist [7].

Recently, there were several cases report relative with haemangioendothelioma treatment: DongyueGu reported one patient was treated with radiation by the guiding of ultrasound, follow up 2 years without recurrence. Li Janjun [8] reported that Microwave Ablation could be a new way to cure haemangioendothelioma. RC Corba used 6 cases showed different outcome with different regimens. The treatment tactics depended on the cases [9].

This case was asymptomatic and discovered by checkup. Because it was multiple lesions, it was not fit for liver resection. According to the treatment strategies, chemotherapy could be performed with little response. It should be candidate for liver transplantation. However, the economic issues would be the obstacles. In our department, TAE was performed to trace the lesions by lipiodol. After that, the lesions were ablated divided into two series in order to avoid major complications. According to the follow up CT, complete respond was obtained.

**Conclusion**

Hepatic epithelioid hemangioendothelioma can be controlled effectively by interventional therapy which is economic and performed easily. More samples needed to confirm it.

**References**