

Selective internal radiotherapy for hepatic epithelioid hemangioendothelioma

To the Editor,

Epithelioid hemangioendothelioma is a rare vascular neoplasm of unknown etiology with an unpredictable malignant potential that involves soft tissues such as liver, lung, bone and skin (1). The clinical manifestations of hepatic hemangioendothelioma (HEH) are nonspecific and variable (2).

A 39 year-old male patient was admitted with complaints of weakness and right upper quadrant pain. Abdominal CT and FDG-PET/CT showed multiple nodular lesions involving both liver lobes, the largest of which was 4x2 cm in diameter and localized to the sixth segment. Further, multiple lymph nodes with an average of 2.5 cm diameter including necrotic components were also detected in the porta hepatis (Figure 1). A fine needle aspiration biopsy was obtained from one of the metastatic liver lesions which histopathological diagnosis was reported as HEH.

The patient was unsuitable for TACE due to involvement of both liver lobes. Liver transplantation was offered but refused by the patient. It was decided to perform SIRT.

SIRT was performed by administration of a single treatment dose of 1.8 GBq ⁹⁰yttrium (48.6 mCi). Immediately after the SIRT treatment, right abdominal quadrant pain, nausea and vomiting developed. However, these changes were transient and resolved in a few days after symptomatic treatment. Control abdominal CT and FDG-PET/CT, performed 2 months later, showed a significant regression of the liver lesions resulting in necrosis. But intense metabolic activities in paratracheal and cardiophrenic lymph nodes persisted (Figure 2). At the end of one year follow-up, the patient is now symptom free and control FDG-PET/CT showed further regression of the lesions (Figure 3).

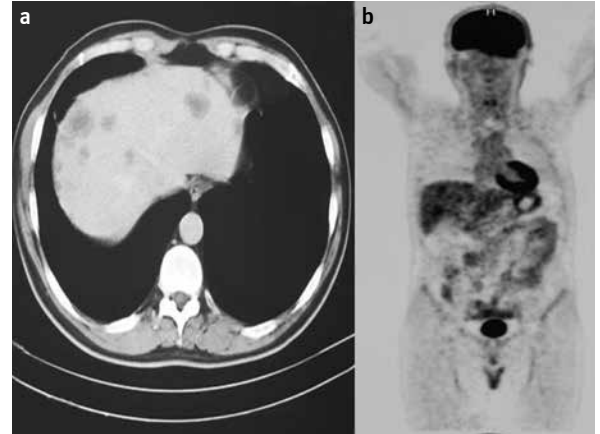


Figure 1. a, b. The image illustrates the lesions of hepatic HEH. (a). CT image and (b). FDG PET/CT images before SIRT.

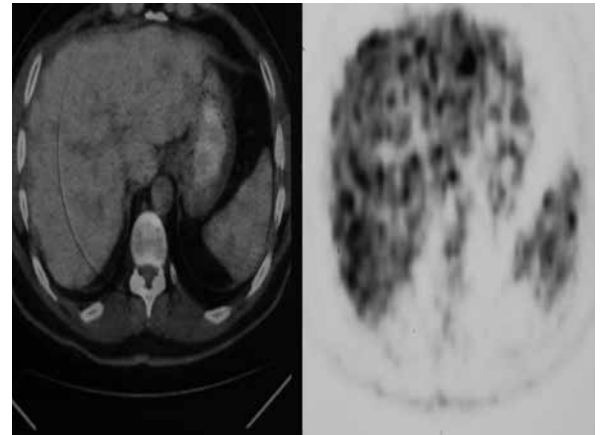


Figure 2. CT and FDG PET/CT images 2 months after SIRT demonstrates lesions of hepatic HEH resulting in necrosis.

Treatment options of HEH vary according to the localization, number and extra-organ involvement of the lesions. Surgical resection remains the mainstay of treatment. However, in the majority of patients, resection is impossible because of the multicentricity of the lesions. Chemotherapy, radiotherapy, radio-frequency ablation, systemic corticosteroid therapy, immunotherapy with

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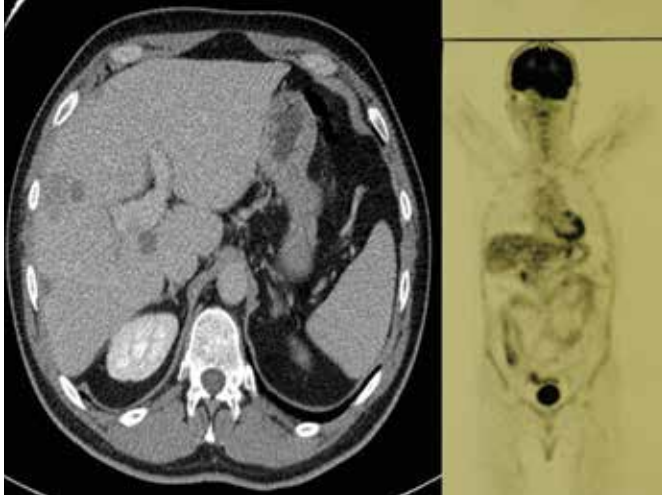


Figure 3. Control CT and FDG PET/CT images 1 year after SIRT treatment showing further regression of the lesions.

interleukin α -2B and thalidomide are the other treatment options (3).

SIRT has been successfully employed in hepatocellular carcinomas and metastases of colorectal cancers, while investigations continue for liver metastases of other tumors such as neuroendocrine tumors and breast cancer (4). SIRT treatment of HEH is a new approach, and our patient is the second reported case in the literature (5).

In conclusion, regression of the lesions by SIRT is promising and suggest us the applicability of this treatment modality for HEH. Further studies consisting of large series are needed before making a final decision.

Conflict of Interest: No conflict of interest was declared by the authors.

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