

Coexistence of primary hepatic myopericytoma and mediastinal Castleman disease in one patient: an interesting ^{18}F -FDG PET/CT imaging case

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To the Editor: Primary hepatic myopericytoma (MPC) is a rare soft tumor, and the concept of myopericyte was first proposed by Dictor in 1992.^[1] In 1998, Granter adopted the name myopericytoma for this form of tumor.^[2] Most MPCs arise from the skin and superficial soft tissues of distal extremities,^[3] but rarely described in the liver.^[4] MPC observed by ^{18}F -fluorodeoxyglucose positron emission tomography/computed tomography (^{18}F -FDG PET/CT) has rarely been reported. Surgical resection of myopericytomas has a good curative effect, and occasionally there is recurrence or metastasis.^[5] Castleman disease (CD) was first described in 1954.^[6] About 70% of CD cases are in the chest, and it can also occur in other areas such as the pelvis, neck, retroperitoneum, and muscles. ^{18}F -FDG PET/CT is effective diagnostic imaging for the diagnosis of CD. Here we report a rare case of coexistence of MPC and mediastinal CD on ^{18}F -FDG PET/CT.

A 56-year-old female patient was hospitalized owing to a hepatic lesion identified by abdominal ultrasound. The results of serum α -fetoprotein, carcinoembryonic antigen and carbohydrate antigen 19-9 were negative. In order to clarify the extent and nature of the lesion, the patient underwent ^{18}F -FDG PET/CT. ^{18}F -FDG PET/CT imaging revealed one lesion in the hepatic left lobe [Figure 1A–D, large arrows], and the size of the lesion was about 6.2 cm \times 5.4 cm and the maximum standardized uptake value (SUV_{max}) was 3.9. Another lesion was found in the mediastinum [Figure 1A, 1E–G, medium arrows]. The size of the mediastinal lesion was about 4.9 cm \times 3.7 cm and the SUV_{max} was 6.4, which was much higher than the hepatic lesion indicating a different entity from the hepatic lesion. The mediastinal lesion was first biopsied and the histopathology revealed CD instead of metastatic lymph node. Then, the patient underwent left hemihepatectomy, and the histopathological result revealed MPC. The

immunohistochemical analysis was positive for vimentin, CD34, smooth muscle actin (SMA), and Ki-67 (few). The low-density lesions without tracer uptake in the liver were cysts [Figure 1B–D, small arrows]. The final diagnosis of these two tumors should depend on histopathological examination.

In this case, the mediastinal lesion was found by accident in the ^{18}F -FDG PET/CT images. The metabolic levels of the hepatic and mediastinal lesions were inconsistent, suggesting coexisting primary tumors. This information was proved to be very helpful for the patient's management. PET/CT showed double primary tumors, not malignant tumors of liver origin with mediastinal lymph node metastasis. Therefore, different treatments can be performed for different tumors.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that her names and initials will not be published and due efforts will be made to conceal her identity, but anonymity cannot be guaranteed.

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Conflicts of interest

None.

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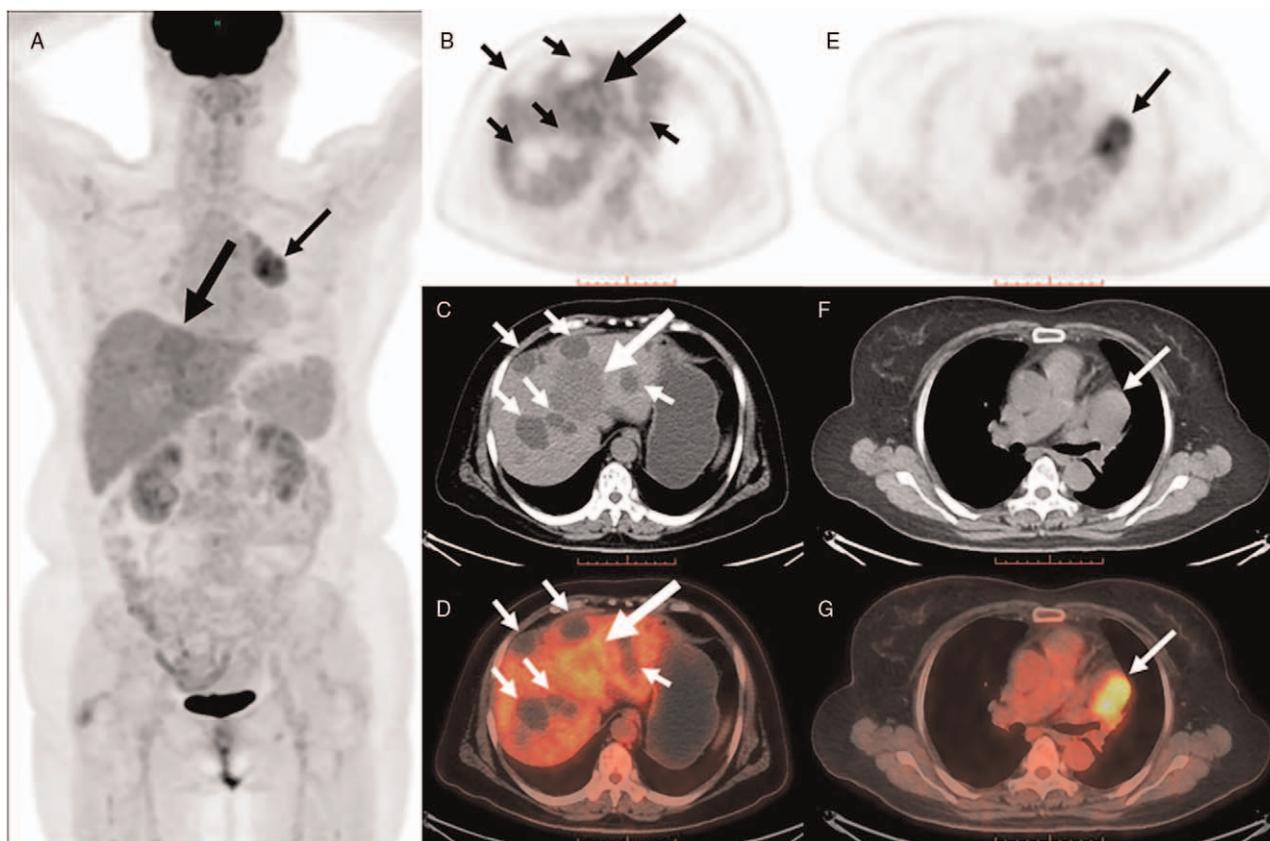


Figure 1: Representative images of the patient. (A) MPC and CD on maximum intensity projection (MIP) PET; (B) MPC on axial PET; (C) MPC on axial CT; (D) MPC on axial PET/CT; (E) CD on axial PET; (F) CD on axial CT; (G) CD on axial PET/CT. Large arrows: MPC; medium arrows: CD; small arrows: liver cysts. CD: Castleman disease; CT: Computed tomography; MPC: Myopericytoma; PET: Positron emission tomography.

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