

Unusual presentation of adrenal lymphoma observed with PET-CT

Adrenal lenfomanın PET-BT'deki ilginç görünümü

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To the Editor,

Lymphoma presenting with enlarged adrenal glands is not common. According to the literature, most adrenal lymphomas do not have extra-adrenal sites. We examined a 47-year-old male patient because of abdominal pain-an unusual presentation of adrenal lymphoma. Following ultrasonographic examination that showed bilateral massively enlarged adrenal glands, the patient underwent F-18 FDG PET-CT. Written informed consent was obtained from the patient prior to PET-CT examination.

PET-CT showed bilateral enlarged adrenal glands (right: 67×55 mm; left: 28×68 mm) and increased FDG uptake (SUVmax: 27-25) (Figure 1a). Additional foci of increased FDG accumulations were observed, as follows: in the millimetric parenchymal nodule on the middle lobe and in the parenchyma (with ground-glass density) on the lower lobe of the right lung (Figure 1b); in pleural surfaces on the right hemithorax (Figure 1c); in peripancreatic and para-aortic lymph nodes in the abdomen-the largest of which was 3 cm in diameter (Figure 1d); in the right caput humeri and in the corpus of 4. lumbar vertebra

(Figure 1e). All of these uptakes were in the range of malignant disease. CT-guided biopsy of the right adrenal gland showed diffuse large B cell lymphoma, which is the most common type of adrenal lymphoma.

Most patients with adrenal lymphoma present with bilateral enlarged adrenal masses, without evidence of extra-adrenal spread [1,2]. Although some patients have extra-adrenal involvement [3-5], the presented patient had highly disseminated disease. The presence of multiple extranodal sites in lymphoma patients at presentation is associated with poor prognosis [4]. Generally, the response to chemotherapy is not good in such patients [5]. After the presented patient completed 3 cycles of R-CHOP chemotherapy, PET-CT showed that all previous hypermetabolic foci were normalized (Figure 2a-c) and that there were new foci of uptake in the interhemispheric area, in the frontal and right temporal lobes of the cerebrum (Figure 2d), in various vertebral bodies (Figure 2e), and in the intramedullary space between 1. and 2 lumbar vertebrae (Figure 2f).

Patients with adrenal lymphoma have a tendency for late central nervous system involvement, as the

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doi:10.5152/tjh.2011.92

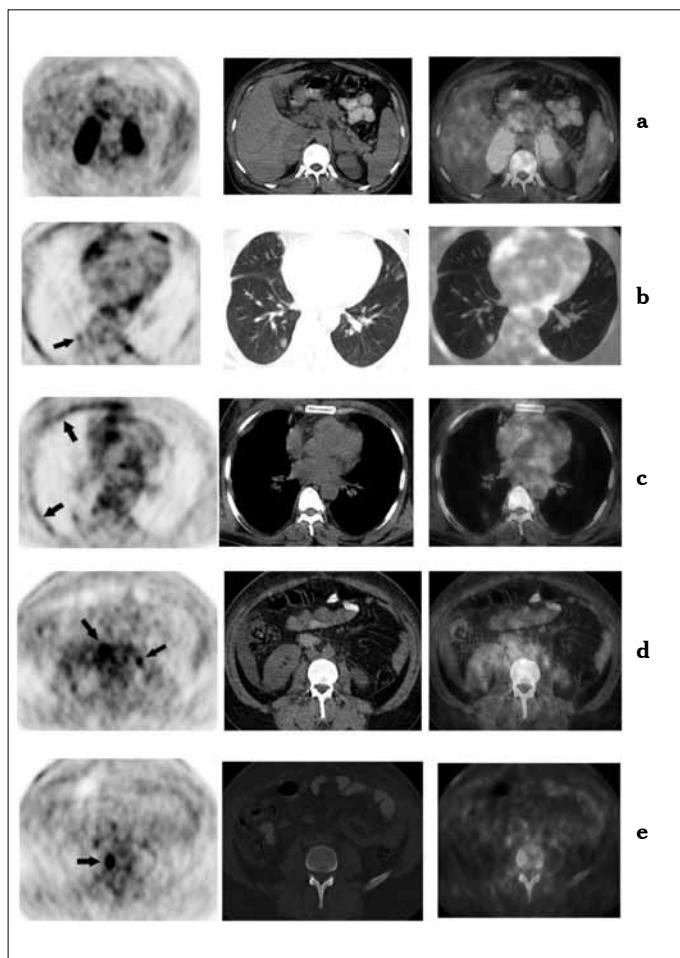


Figure 1. PET-CT Which Was Taken During the Evaluation Process of Bilateral Enlarged Adrenal Glands of the Patient

presented patient did [2]. Despite all treatment efforts, patients usually die within 1 year [5]. After follow-up PET-CT the presented patient was scheduled to continue receiving chemotherapy; however, pulmonary *Pneumocystis jiroveci* infection was subsequently diagnosed and following antibiotic therapy the patient died due to fungal superinfection without having received additional chemotherapy.

The presented patient had an unusual presentation of adrenal lymphoma with multiple, extra-adrenal involvement at the time of diagnosis and expected onset of the disease. The patient developed new sites of disease, including the central nervous system, while undergoing chemotherapy and died after 6 months from the diagnosis of his disease.

Conflict of interest statement

The authors of this paper have no conflicts of interest, including specific financial interests, relation-

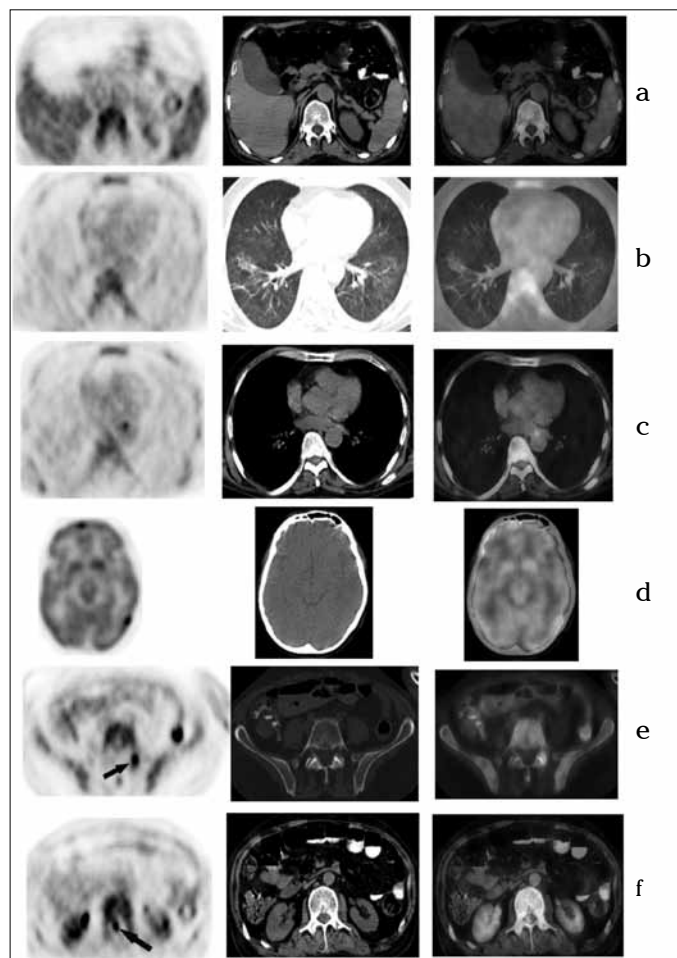


Figure 2. PET-CT of the Patient After 3 Cycles of R-CHOP Chemotherapy

ships, and/or affiliations relevant to the subject matter or materials included.

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