Follicular Lymphoma mimicking Metastatic Nodes on the F-18 FDG PET/CT and MRI for Staging of Endometrial Cancer

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Abstract A 53-year-old woman was diagnosed with endometrial carcinoma by vaginal bleeding. F-18 fluorodeoxy glucose positron emission tomography PET/CT (F-18 FDG PET/CT) scan for staging showed intense focal FDG uptake in the endometrium suggesting endometrial malignancy. PET/CT showed multiple node uptakes in the pericaval region, paraaortic region, common iliac, and both internal iliac and external iliac regions suggesting multiple pelvic and retroperitoneal node metastases. MRI showed multiple metastatic

lymphadenopathy in the retroperitoneum and pelvic cavity. Pathologic diagnosis performed with dissected pelvic and paraaortic nodes was confirmed as a follicular malignant lymphoma positive for B-cell lymphoma-2(Bcl-2) stain, not the metastatic node of primary endometrioid carcinoma.

Keywords Endometrial carcinoma · Lymphadenopathy · Lymphoma · PET/CT

The manuscript has not been published before or is not under consideration for publication anywhere else.

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Fig. 1 Synchronous occurrence of multiple neoplasms is a rare condition. Cases of synchronous non-Hodgkin lymphoma (NHL) and second primary carcinoma are relatively rare [1–4]. F-18 FDG PET/CT is a very effective imaging tool for evaluation of malignant lesion including endometrial cancer [5–7]. Maximum intensity projection of PET/CT (a) and axial F-18 FDG PET/CT images (d, e) showed endometrial malignant lesion and multiple metastatic lesion. Axial T2 weighted image of MRI (b, c) showed a 5 x 2.2 x 2.8 cm sized mass lesion with lobulated T2 heterogeneous high signal intensity in the uterine cavity (yellow arrow). Very intense FDG uptake along endometrial lumen with maximum SUV

(standardized uptake value) of 10.5 was noted on the uterus. Histology confirmed the poorly differentiated endometrioid carcinoma. MRI showed multiple lymphadenopathies in both internal iliac, external iliac, common iliac area, left paraaortic area, aortocaval space, and retrocaval space. PET/CT showed multiple node uptakes in the pericaval region, paraaortic region, common iliac, both internal iliac and external iliac regions suggesting multiple pelvic and retroperitoneal node metastases. However, there is no metastatic tumor cell within dissected nodes. After close immunohistochemical staining, follicular lymphoma was confirmed in the dissected pelvic and paraaortic nodes

Fig. 2 Axial T2 weighted image of MRI (a) showed two lymph nodes with high signal intensity in the left paraaortic area (yellow arrow). PET/CT (b, c) also showed two mild focal FDG uptakes in the left paraaortic nodes. Two studies reported metastatic nodes in the retroperitoneum. Axial T2 weighted image of MRI (d) showed a lymph node with high signal intensity in the left external iliac area (yellow arrow). PET/CT (E, F) also showed mild focal FDG uptake in the left external iliac node. Two studies reported metastatic nodes in the pelvis

Compliance with Ethical Standards

Conflict of Interest Seok Nam Yoon declare no conflict of interest.

Ethical Statement All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation and with the Helsinki Declaration of 1975, as revised in 2000. Informed consent was obtained from the patient for being included in the study.

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