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Two Primary Malignancies Simultaneously Detected in the Abdomen with Different Histopatological Results on FDG PET-CT Imaging in a Patient

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Abstract

F18 - Fluorodeoxyglucose (FDG) PET/CT have found widespread application area especially in oncological patients. In the present case, FDG PET-CT imaging findings were presented in a forty five years old women patient with two primary malignancies in the abdomen.

Keywords**:** *endometrium carcinoma, positron emission tomography, FDG, sarcoma.*

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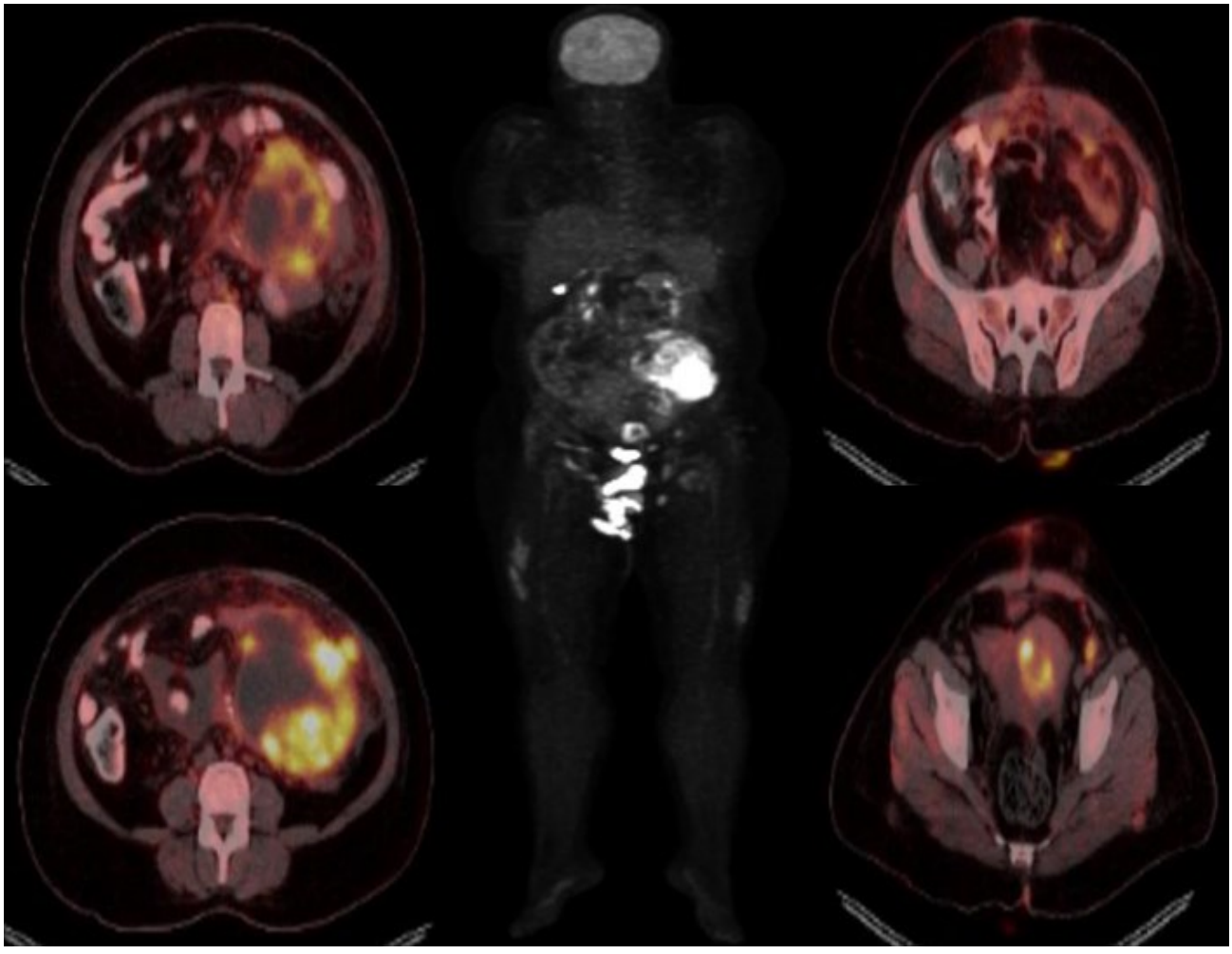

Figure 1.: Forty five-years-old women patient with intraabdominal mass was referred to our department for PET/ CT imaging on examination and staging of underlying malignancy. Following fasting for 12 hours i.v. 8.9 mCi 18F-FDG was injected. Sixty minutes later images to be 2 minutes per bed in 3D mode were taken from the calvarium to the footpad. Images taken on Siemens Biograph m CT 20 PET-CT were evaluated after attenuation correction with low-dose CT. On PET-CT imaging a histopathologically diagnosed mass of sarcoma approximately 12x10 cm (SUVmax: 45) irregularly shaped central necrose areas of heterogeneous density was detected in the mesenteric tissue starting from the inferior level of the kidney and extending to the level of the pelvic inlet. Bilateral paraaortic, aortacaval, retroperitoneal, mesenteric and pelvic hypermetabolic metastatic lymphadenopaties and implants (SUVmax: 11), were also detected. There was a hypermetabolic postoperative fluid collection area around 3.5x3 cm (SUVmax: 9) in the muscle planes on the left of the anterior abdominal wall. In addition to these findings described in relation to the diagnosis of intra-abdominal mesenteric undifferentiated sarcoma, a second hypermetabolic primary mass, approximately 4x3.5 cm in size (SUVmax: 22), was detected in the endometrium, with pathology determined as endometrial carcinom in PET-CT images. In the present case, PET-CT imaging was performed for staging purpose of intraabdominal mesenteric undifferantiated sarcoma and also second primary endometrial carcinoma was detected. FDG PET-CT is generally superior to CECT and MRI for detecting distant metastasis in advanced stage endometrial carcinoma

patients. PET-CT is recommended for detecting distal metastases in current clinical practice guidelines (1,2). PET-CT may change the management in a significant percentage of patients regarding recurrence monitoring and follow up, resolving uncertain findings of CECT and MRI. In addition, there is growing interest in PET and MRI fusion imaging for the evaluation and follow-up of uterine and cervical cancers. And also soft tissue sarcomas (STS) are highly fluorine-18-fluorodeoxyglucose (F-FDG)-avid tumours. PET seems to be effective for the assessment of the extent of disease (3,4). Herein we report a patient with two different simultaneously detected primary malignies both of which are FDG avid.

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Authorship Contributions

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