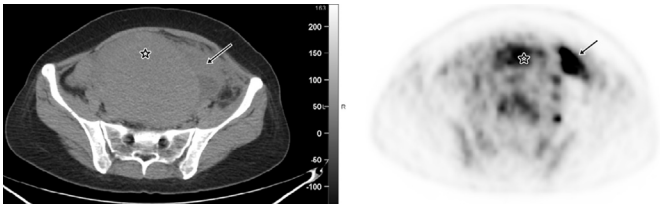
Actinomycosis-induced adnexal and uterine masses mimicking malignancy on FDG PET/CT

Yiyan Liu, MD, PhD

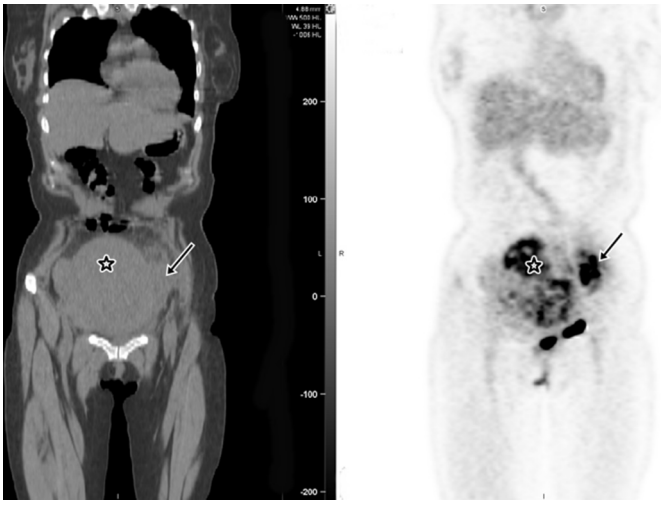
FIGURE 1
Axial pelvic image of fluorodeoxyglucose positron emission tomography



The *arrows* indicate a fluorodeoxyglucose avid left adnexal mass; the *stars* indicate multiple fluorodeoxyglucose avid masses.

Liu. Actinomycosis-induced adnexal and uterine masses. Am J Obstet Gynecol 2019.

FIGURE 2
Coronal image of fluorodeoxyglucose positron emission tomography



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Case notes

A 43-year-old woman with recent removal of an intrauterine device experienced acute vaginal bleeding. Computerized tomography showed a large left adnexal mass, multiple uterine masses, and omental caking suspicious for ovarian malignancy. The patient was referred to fluorodeoxyglucose positron emission tomography (FDG PET/CT) for staging before laparotomy, which demonstrated a FDG avid left adnexal mass and enlarged uterus with multiple FDG avid masses (Figures 1 and 2). Findings were suspicious for either primary ovarian malignancy or uterine leiomyosarcoma with metastasis. The patient underwent total abdominal hysterectomy and left salpingo-oophorectomy. Surgical pathologic findings indicated *Actinomyces*-induced salpingitis, a 1316-g uterus with leiomyomas, and chronic endometritis from *Actinomyces* infection.

Conclusions

Numerous case reports link pelvic actinomycosis in women with the intrauterine device. The indolent course of the infection may cause a granulomatous mass that mimics a malignant tumor. Positive FDG PET/CT findings may lead to a false-positive diagnosis of ovarian/uterine malignancy. ■

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