

ABSTRACT P7

Assessing Treatment Response and Relation between Breast Cancer and Uterine Mass on Fluorodeoxyglucose PET/CT: Case Report with Pictorial Review of Rare Encounter

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Hybrid molecular imaging with fluorodeoxyglucose positron emission tomography/computerised tomography (FDG PET/CT) has been well advocated in oncology and the evaluation of malignant diseases including breast cancer by depicting and mapping abnormal tumour glucose hypermetabolism. Malignant lesions are commonly associated with increased FDG-avid uptake. Although breast cancer frequently metastasizes to organs or locations such as bones, lungs, and liver, distant metastasis to the uterus is rare and only reported in selected cases. We aimed to highlight this rare condition and the promising role of FDG PET/CT in disease staging and monitoring. We present a 45-year-old woman with histologically confirmed invasive lobular carcinoma of the left breast, who developed a uterine mass and underwent further investigation following recurrent episodes of abnormal vaginal bleeding. Endometrium pipelle sampling confirmed the presence of metastatic breast carcinoma. Hence, systemic chemotherapy and pelvic radiotherapy was administered. Subsequently FDG PET/CT was carried out for staging and demonstrated FDG-avid malignancy in the left chest wall arising from the left breast, bilateral axillary and left hilar lymphadenopathies and bone metastases as well as uterine mass, bilateral adnexal lesions and pelvic lymph nodes. Following surgery to remove uterus and ovaries, a repeat FDG PET/CT done for disease monitoring and treatment response evaluation showed features of possible disease progression involving liver deposits and abdominopelvic lymphadenopathies. In conclusion, breast cancer metastasis to the uterus is rare and most often involves invasive lobular carcinoma. This can present as a hypermetabolic uterine mass or pelvic lesion on hybrid molecular imaging. We have discussed the role of FDG PET/CT in detecting, staging, and monitoring this unusual case of gynaecological metastasis.

Keywords: invasive lobular carcinoma, FDG, uterine metastasis

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