

A rare case of rectal carcinoma and prostate carcinoma with coexistent Paget's disease mimicking bone metastases in both ^{18}F -FDG and ^{68}Ga PSMA PET/CT

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^{18}F -FDG PET/CT for initial staging in a 68-year-old man with moderately differentiated adenocarcinoma of the rectum showed intense FDG uptake in the primary site in the rectum (Fig. 1B,C yellow arrow) and mild to moderate heterogeneous FDG uptake in diffuse sclerotic lesions involving the left hemipelvis, proximal aspects of left femur, and L5 vertebra (Fig. 1A, red arrow, Fig. 1D,E). Incidentally, per rectal examination revealed a hard nodule in the right half of the prostate and his serum prostate-specific antigen (sPSA) level was elevated (11 ng/mL). Subsequent biopsy revealed adenocarcinoma of the prostate (Gleason score – 7), and a ^{68}Ga PSMA PET/CT for initial staging showed intense tracer uptake in the primary site in the prostate (Fig. 1F,J green arrow) and mild to moderate heterogeneous tracer uptake in the bone lesions (Fig. 1G-I, red arrow) similar to that seen in ^{18}F -FDG PET/CT. As the pattern was not definitive for bone metastases from either the rectum or prostate, a bone biopsy from the left iliac crest was done, which revealed Paget's disease. The role of ^{18}F -FDG PET/CT in colorectal cancer [1] and ^{68}Ga PSMA PET/CT in prostate cancer is well established

[2]. False positive uptake in Paget's disease in ^{18}F -FDG PET/CT [3] and ^{68}Ga PSMA PET/CT is published [4]. This case reinforces the fact that atypical findings on PET/CT warrant careful interpretation and often histopathological correlation.

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