Detection of soft tissue metastasis with ^{99m}Tc-PSMA SPECT/CT imaging in CA prostate: a case report.

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BACKGROUND

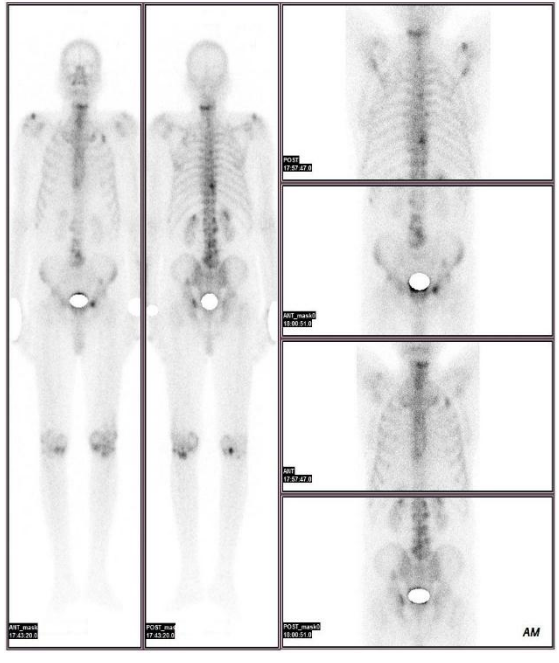
Prostate cancer (PCa) is the most common cancer in men. Treatment of CA prostate depends on presence or absence of metastases. Conventional imaging modalities like bone scan, computed tomography (CT) and magnetic resonance imaging (MRI) have low sensitivity in the detection of recurrence or metastases as compared to PET/CT imaging. However PET/CT is not widely available in less developed countries.

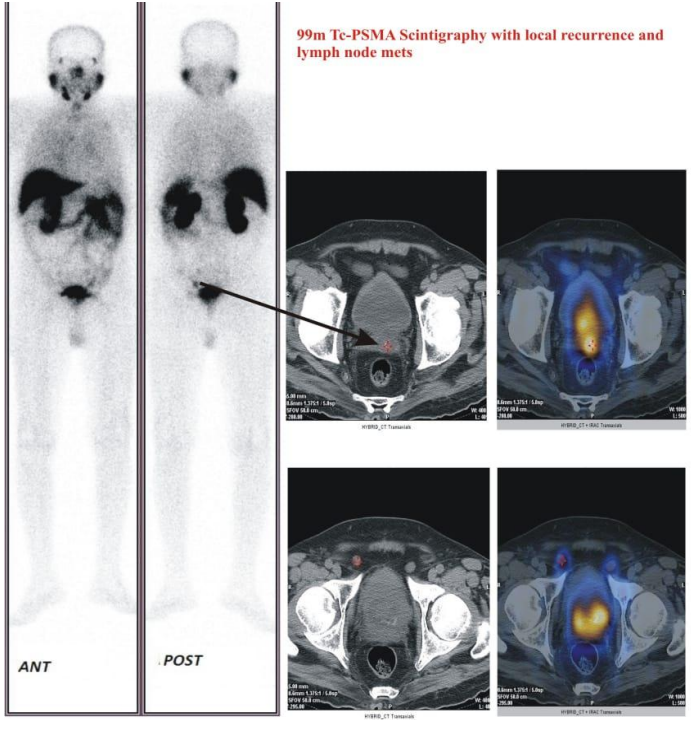
Prostate specific membrane antigen (PSMA) is a promising target for Prostate cancer -specific imaging as well as therapy. Although ^{99m}Tc-MDP is widely used in detection of bone mets in CA prostate, ^{99m}Tc-PSMA has additional advantage of detecting extraossous metastasis

CASE PRESENTATION

76 yr old male underwent Transurethral resection of prostate (TURP). Histopathology showed adenoCA prostate, Gleason score 9/10. PSA level was 29.71 ng/ml. Patient underwent both ^{99m}Tc-MDP sintigraphy as well as ^{99m}Tc-PSMA SPECT/CT scintigraphy. ^{99m}Tc-MDP bone scan showed bone metastasis. ^{99m}Tc-PSMA T4 SPECT/CT showed bone metastasis as well as extraossous mets.

^{99m}Tc MDP Bone scan with bone mets





CONCLUSION

In comparison to conventional imaging, PSMA can detect more bone metastasis. PSMA has also additional advantage to detect extraosseous metastasis