

Interesting Image

Abnormal Finding of Left Femoral Bone Mineral Densitometry

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ABSTRACT

Abnormal finding was observed in the left femoral bone density image of a 55-year-old male patient who diagnosed a breast cancer. MRI results showed that it was a benign tumor similar to liposclerosing myxofibrous tumor(LSMT) sized about 2cm at left femoral neck.

Bone mineral densitometry (BMD) determined numerically with T or Z-score is an prominent method for diagnosing osteoporosis and osteopenia. However, the image is not considered in the interpretation.

The role of a radiologic technologist is important in BMD and it provides significant assistance in the treatment of patients

Key words: Bone Mineral Densitometry, Liposclerosing Myxofibrous Tumor, Benign Tumor

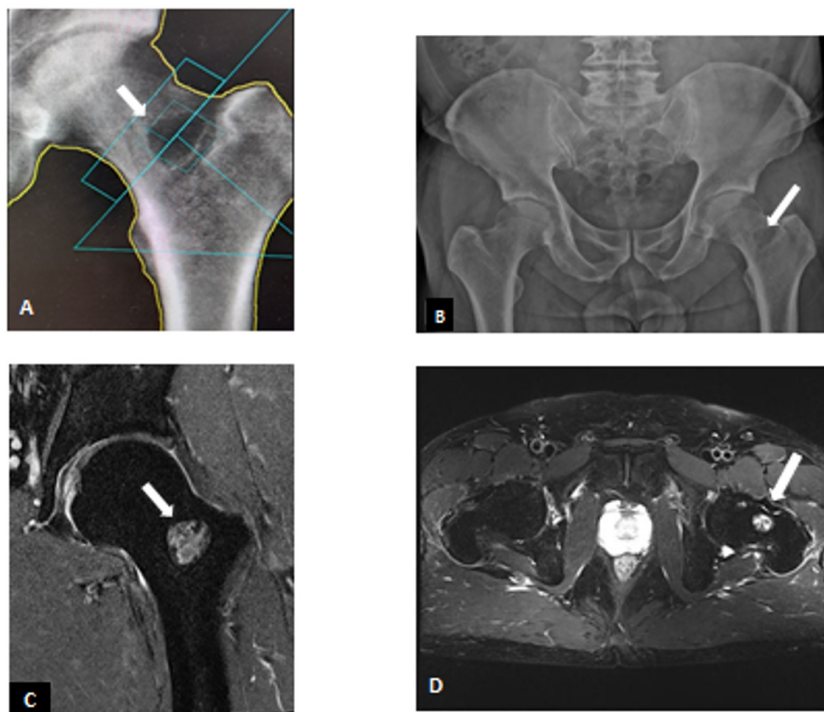


Fig. 1. A 55-year-old male patient diagnosed with breast cancer showed abnormal findings in the left neck (arrow) area on femur bone density (A), pelvis AP (arrow) (B) and MRI (arrow) images (C, D). A benign tumor similar to LSMT sized about 2cm was observed at left femoral neck on coronal (C) and axial (D) image of MRI.

Abnormal finding was observed in the left femoral bone density image of a 55-year-old male patient who diagnosed a breast cancer. Radiologic technologist recommended visiting an orthopedic specialist. An MRI and Pelvis AP scan were performed, and the MRI results indicated a benign tumor similar to LSMT. It is a benign fibro-osseous lesion, with distinct radiographic and clinical features and diverse histologic patterns. LSMT was first described in 1986 and is a relatively rare benign bone tumor that may occur in the proximal femur and other sites such as the ilium, humerus, tibia, ribs, and skull. It is characterized by a complex mixture of histological elements including fibrous dysplasia-like bony trabeculae, myxofibrous tissue, lipomatous areas, xanthoma cells and pseudo-Paget's bone. The tumor is usually discovered incidentally on radiographic examination or in conjunction with the painful symptom, and very rarely as a result of a pathological fracture.

Treatment and prognosis of LSMT are as follows

incidentally detected asymptomatic lesions: no treatment or intervention

symptomatic lesions: are commonly managed with bone curettage, bone grafting, and fixation

pathological fracture: uncommon ~10%; proximal femoral lesions may require arthroplasty

malignant transformation: rare but documented 10-15%; transformation into osteosarcoma is the most common

Due to this potential malignant transformation, lesions need follow-up imaging preferably by MRI. Symptomatic lesions or those with interval change require surgical resection.

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