

Subtrochanteric Fracture as First Sign of Metastatic Bone Disease: Case Report

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INTRODUCTION:

Atraumatic or atypical fractures of the proximal femur are fractures that occur without any significant trauma at the level of the hip, usually happen when the patients step on the respective lower limb, sometimes under load of some sort or following trivial fall or bumping into piece of furniture, but they exclude fractures caused by fall from at least of same height. Because of the extremely low energy involved, underlying bone pathology is essential, meaning that the fractures would not occur on healthy bone.

Bone metastases are common complication of cancer and can be caused by most types of malignancies. The bone is the third most common site of metastasis, accounting for 30-70% of total cancer patients. They occur frequently in breast cancer (65-75%), prostate cancer (65-90%), lung cancer (17-64%), thyroid cancer (65%) and less frequently in bladder cancer (40%), melanoma (14-45%), renal cancer (20-25%) and colorectal cancer (10%). Bone lesions are found in 70-95% of multiple myeloma cases.

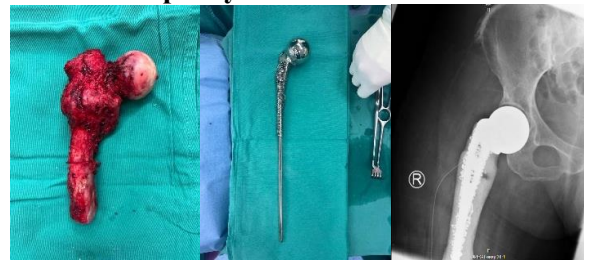
REPORT:

A 48-year-old woman without any previously known pathologies, presented to emergency department due to right hip pain for past 3 months, went for physiotherapy session and claimed right hip pain worsening post physiotherapy until unable to weight bear. Patient had a height of 155cm, body weight of 63kg, non-smoker, non-alcoholic, denied regular use of any drugs. Medical histories revealed no significant conditions. Clinical examinations of right lower limb shortened and externally rotated, tender right hip on palpation and mobilization. A standard pelvis X-ray was performed, noted suspicious lytic lesion with right subtrochanteric fracture. Upon further examination, noted right breast lump, done tru-cut biopsy, revealed to be invasive carcinoma. CT-TAP showed multiple bone metastasis.

Figure 1: Plain Pelvis Radiograph & MRI Right Hip (Contrast Enhanced)



Figure 2: Wide Resection of Right Proximal Femur and Modified Cemented Austin Moore Hemiarthroplasty with K-Nail



Patient was treated with surgery, done wide resection of right proximal femur followed by reconstruction with modified cemented Austin Moore Hemiarthroplasty with K-Nail.

CONCLUSION:

Metastatic bone disease is the most common cause for atypical or atraumatic fractures, especially in patients more than 45 years of age. Most patients first presented as fractures without knowing the source of primary until further investigations done, hence we always need to aware of such conditions.

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