INTRODUCTION

Primary hyperparathyroidism (PHPT) is frequently diagnosed as an incidental finding of hypercalcemia. Overt bone disease (osteitis fibrosa cystica or brown tumor), with history of pathologic fractures is a rare presentation.

CASE PRESENTATION

48-year-old woman

Medical history

- multiple bone fractures in the last six years - left patella and both wrists
- Surgery, four years before, to lytic lesion of the right humerus, assumed as aneurysmal bone cyst -> last follow-up CT, revealed recurrence of lytic lesion and she was propos to shoulder arthroplasty

Admitted with

- pain in the right thigh after a trivial fall
- generalized weakness and lethargy over the last 2 years

X-rays revealed:

- pathologic fracture of the right femur
- multiple osteolytic lesions (right humerus, right femur, both shoulder blades and iliac bones)
- subperiosteal erosions in the distal phalanges
- old fractures in the ribs

Femur fracture was managed with osteosynthesis and humeral biopsy documented multiple giant cells consistent with brown tumor of PHPT.

Bone scan showed increased uptakes over right humerus, right femur and tibias.

Ultrasound - mixed texture lesion in the left superior parathyroid (5.8x3.9x2.4cm)

Analysis revealed severe PHPT

- Serum calcium: 3.49 mmol/L
- Phosphorus: 0.33 mmol/L
- PTH: 1435 pg/mL

Sestamibi scanning confirmed a left parathyroid adenoma, with a necrotic centre and bone uptakes coincident with previous bone scan.

CONCLUSION

Pathological fractures in young adults should always be investigated. A high index of suspicion is necessary to diagnose this unusual presentation of PHPT.

Bibliography: