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Osteitis fibrosa cystica

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VISUAL VIGNETTE

Osteitis fibrosa cystica

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A 77-year-old male with end-stage renal disease (ESRD) on hemodialysis complicated by secondary hyperparathyroidism and osteitis fibrosa cystica (OFC) presented with sudden-onset atraumatic left hip pain and inability to bear weight. A computed tomography scan demonstrated progression of OFC with subchondral cystic changes involving the left femoral head, femoral head-neck junction, and superior acetabulum without occult fracture (Figures 1 and 2). Calcium, phosphorus, and

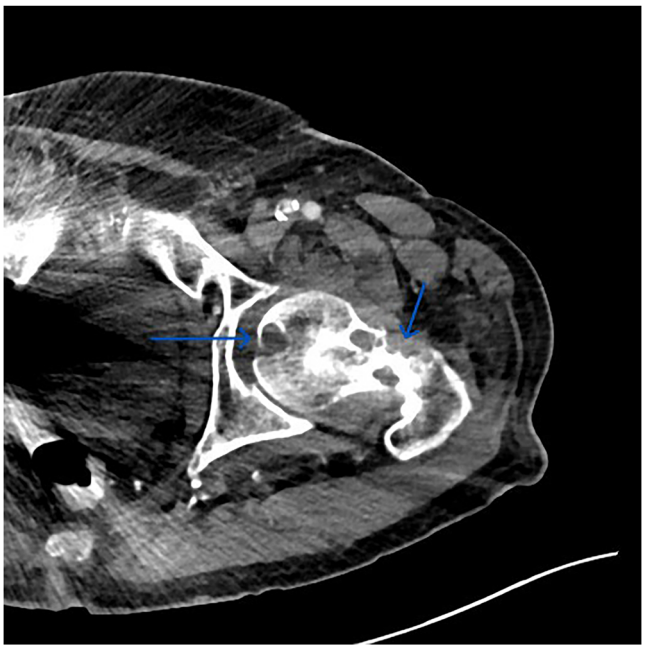

FIGURE 1 Axial computed tomography of left hip demonstrating left hip joint space narrowing with subperiosteal bone resorption and cystic changes of femoral neck and head (arrows) consistent with osteitis fibrosa cystica (OFC). Differential diagnosis of these findings includes malignant neoplasm, crystalline arthropathy, and inflammatory arthropathy in addition to OFC.

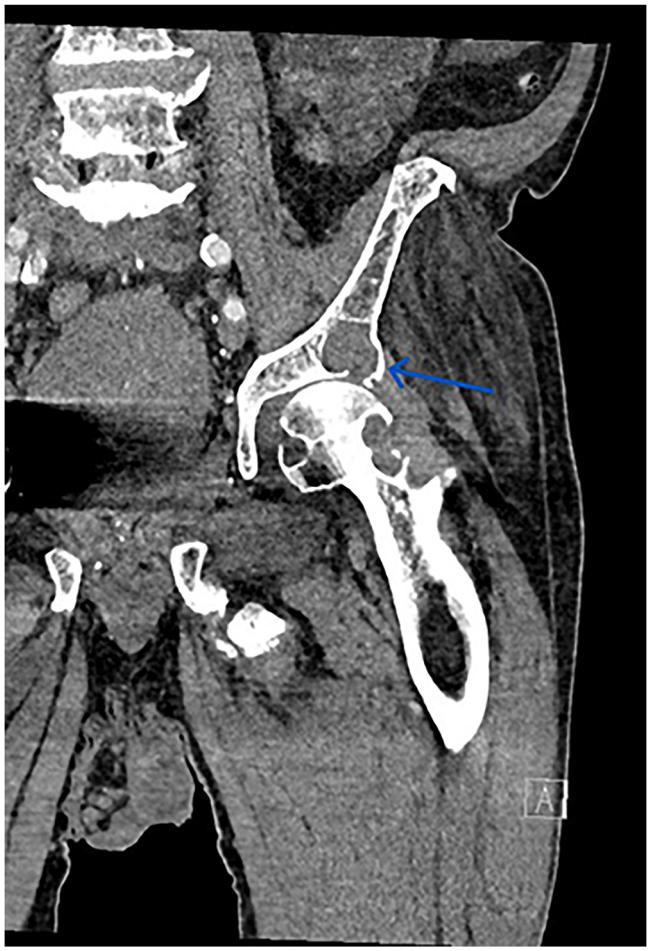

FIGURE 2 Coronal computed tomography of left hip demonstrating left hip joint space narrowing with subperiosteal bone resorption and cystic changes of superior acetabulum (arrow) as well as femoral neck and head.

vitamin D levels were normal, but parathyroid hormone (PTH) was >1000 pg/ml despite adherence to treatment. He was made non-weight bearing and underwent urgent prophylactic total left hip arthroplasty and eventual parathyroidectomy with normalization of his PTH levels.

OFC is a rare complication of secondary hyperparathyroidism in patients with ESRD.[1] Subperiosteal bone resorption and bone cysts are common radiographic findings and can present clinically with bone pain and fractures.[1] The radiographic findings of OFC can mimic other conditions, including malignant neoplasms, and biochemical analysis consistent with hyperparathryroidism may help distinguish between these diagnoses.[1] Timely inpatient Orthopedic Surgery consultation for determination of appropriate weight bearing status and consideration of surgical stabilization should be pursued in symptomatic patients with OFC lesions of the long bones, as these patients are at increased risk for pathologic fractures. Additionally, surgical referral should also be considered in patients with refractory secondary hyperparathyroidsim as parathyroidectomy in this dialysis cohort is associated with decreased all-cause mortality, normalization of calcium and phosphorus, decreased fracture rate, and improved health-related quality of life.[2]

CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no data sets were generated or analyzed during the current study.

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REFERENCES

1. Usmael SA, Ansa SM, Tufa DW. Osteitis fibrosa cystica; a forgotten manifestation of secondary hyperparathyroidism due to end-stage renal disease: a case report. *Int Med Case Rep J*. 2022;15:529-535. doi:10.2147/IMCRJ.S382624
2. Lau WL, Obi Y, Kalantar-Zadeh K. Parathyroidectomy in the management of secondary hyperparathyroidism. *Clin J Am Soc Nephrol*. 2018;13(6):952-961. doi:10.2215/CJN.10390917

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