SUN307

Atraumatic Bilateral Femur Fractures Secondary to Longstanding GI Malabsorption with Subsequent Multiple Vitamin Deficiencies

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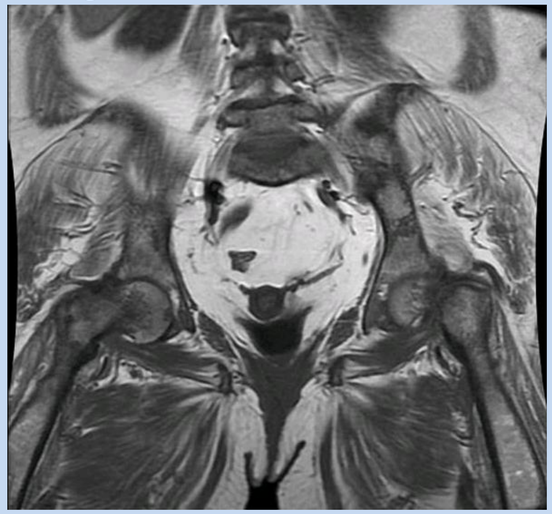
Introduction

Cases of atraumatic bilateral femur fractures have been attributed to long-term bisphosphonate use. Although cases have been reported due to Vitamin D insufficiency, clinicians should also consider the presence of other vitamin deficiencies from underlying malabsorptive issues.

Date	PTH	Calcium	iCa	25OH-D
10/7/2016	2284.00	9.7		
10/8/2016		9.3		
10/9/2016	2079	9.7	5.34	2
10/10/2016		8.2	4.91	
10/11/2016		8.1		
10/12/2016		8.7	4.96	
10/13/2016		9.5	5.52	
10/14/2016		9.2	5.32	
1/19/2017	1693	10.3	5.50	15

Discussion

For cases of hyperparathyroidism, even severe cases with PTH >2000 and bilateral femur fractures, clinicians should consider malnutrition and GI malabsorption as potential etiologies



Case Description

52-year old obese Caucasian woman without medical care for decades was admitted to an outside hospital with atraumatic bilateral femoral neck fractures. MRI showed bilateral occult femoral neck fractures with possible marrow replacement, concerning for malignancy. Admission labs showed Ca 8.9-9.5 mg/dL. She was given a single dose of Calcitonin for concern of Paget's disease. On transfer to our facility, her labs showed Ca 9.7mg/dL (8.5-10.5), Phos 2.3mg/dL (2.7-4.5), and PTH 2284 pg/mL (11-95). CT chest, abdomen, pelvis showed no evidence of metastatic disease or lymphadenopathy. There was abnormal trabeculation of axial and appendicular skeleton suggestive of underlying metabolic disease. 24-hr urine calcium showed low calcium of 84 (100-300), normal phosphorus of 774 (340-1000), and creatinine 1024.

On day 2 of the admission, iCa was elevated to 5.34 mg/dL (4.20-5.20) and, as suspected, her 25OH-Vitamin D3 was 2ng/mL. She was started on calcium and Vitamin D supplementation for treatment of secondary hyperparathyroidism. She subsequently developed intermittent hypercalcemia up to iCa 5.52 suggestive of tertiary hyperparathyroidism. Additional workup revealed negative TTG Ab, low prealbumin 12.4 (14.0-38.0) and vitamin A deficiency of 10 mcg/dL (38-98). Patient described a typical American diet, notable for lactose intolerance. Her multiple vitamin deficiencies were suggestive of an underlying GI malabsorption.