Adult osteomalacia

A treatable cause of “fear of falling” gait

Figure Severe osteopenia

The left hand x-ray suggested the diagnosis of osteomalacia because of the diffuse demineralization.

A 65-year-old man was hospitalized with a gait disorder, obliging him to shuffle laterally¹ (video on the *Neurology*® Web site at www.neurology.org) because of pain and proximal limb weakness. He had a gastrectomy for cancer 7 years previously, with severe vitamin D deficiency; parathormone and alkaline phosphatase were increased, with reduced serum and urine calcium and phosphate. There was reduced bone density (figure). He was mildly hypothyroid and pancytopenic. B₁₂ and folate levels were normal. Investigation for an endocrine neoplasm (CT scan, Octreoscan) was negative. EMG of proximal muscles was typical for chronic myopathy; nerve conduction studies had normal results.

After 80 days' supplementation with calcium, vitamin D, and levothyroxine, the patient walked properly without assistance (video); pancytopenia and alkaline phosphatase improved.

This unusual but reversible gait disorder may have resulted from bone pain and muscular weakness related to osteomalacia² and secondary hyperparathyroidism, with a psychogenic overlay.

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