Where are the vertebras?

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Man, 55-year-old, professional musician at nightclubs, with generalized pain at lower extremities and spine for 3 years, associated with proximal muscle weakness and abdominal muscle spasms. In the last year development of progressive kyphoscoliosis and waddling gait. On physical examination, marked kyphosis, generalized muscle atrophy and spastic contraction of abdominal muscles. Laboratory had high alkaline phosphatase, low calcium (Ca 5.9 mg/dL) and phosphorus (P), undetectable vitamin D (vit D) with secondary hyperparathyroidism (929 pg/mL) and decreased urinary Ca and P. Axial x-rays showed a diffuse decrease in bone density without visualization of vertebral bodies (Figure 1), with severe osteoporosis diagnosed by bone densitometry. Bone scintigraphy (Figure 2) detected many costal grid fractures and recent fractures of dorsal spine (confirmed by computed tomography; Figure 3). Patient was diagnosed with osteomalacia due to nutritional vit D deficiency and lack of sun exposure and initiated physical rehabilitation and supplementation with calcitriol and calcium. After 3 weeks of treatment there was improvement in muscle strength and reso-

FIGURE 1. Axial x-ray showing a diffuse decrease in bone density

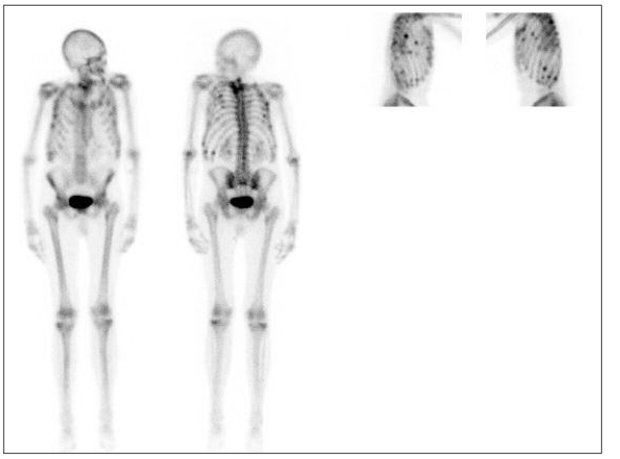

FIGURE 2. Bone scintigraphy with multiple fractures

FIGURE 3. Dorsal vertebra fracture evidenced by computed tomography

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lution of abdominal muscle spasms, with normalization of serum Ca and P levels and a discrete increase in vit D.

Osteomalacia is a metabolic bone disease with impaired mineralization of bone matrix. Diagnosis is clinical, based on symptoms, laboratory results and radiologic findings[1], which include osteopenia, loss of trabeculae of vertebral bodies and looser zones. Nutritional vit D deficiency is an increasingly common of osteomalacia[2] and in this cases improvement in muscle strength and bone tenderness occurs within weeks of supplementation, while bone density may take 3 to 6 months[3].

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REFERENCES

1. Bhan A, Rao AD, Rao DS. Osteomalacia as a result of vitamin D deficiency. Endocrinol Metab Clin North Am 2010; 39:321.
2. Reginster JY. The high prevalence of inadequate serum vitamin D levels and implications for bone health. Curr Med Res Opin 2005; 21:579.
3. Bhambri R, Naik V, Malhotra N, et al. Changes in bone mineral density following treatment of osteomalacia. J Clin Densitom 2006; 9:120.