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Images in Rheumatology

Spinal Stenosis Caused by Calcinosis in a Patient With Systemic Sclerosis

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Calcinosis or dystrophic soft-tissue calcification occurs in damaged/devitalized tissues in the presence of normal calcium/phosphorus metabolism.[1] It is a known complication of connective tissues diseases, especially juvenile dermatomyositis and systemic sclerosis (SSc), and may be localized or widespread.[2] Previous data from the Scleroderma Clinical Trials Consortium showed calcinosis to be most commonly associated with digital ulceration, osteoporosis, telangiectasias, and acroosteolysis,[3] as well as with anticentromere, anti-PM/Scl, and anticardiolipin antibodies.[3] While calcinotic accumulations typically occur at pressure sites,[1,4] here we present an unusual case of calcinosis affecting the spinal canal.

A 63 year-old woman with a history of osteoporosis was diagnosed with diffuse SSc based on puffy hands, Raynaud phenomenon, sclerodactyly, sclerodermatous skin changes affecting both arms, and positive antinuclear antibody with a nucleolar pattern and anti-Scl70. No telangiectasias or calcinosis were apparent on exam. Following initial diagnosis, she started complaining of low back pain radiating to her left leg. Computed tomography (CT) scan revealed a calcified lesion in the left facet joint at L5–S1 level protruding centrally into the spinal cord and causing severe spinal stenosis; there were no additional visceral/retroperitoneal abnormalities (Figure 1A,B). Magnetic resonance imaging of the spine demonstrated similar findings. The lesion was totally resected laparoscopically with resolution of her symptoms. Pathologic examination of the resected specimen showed calcified mass.

Although dystrophic soft-tissue calcification is known to complicate SSc and may involve the vertebral column, it rarely causes cervical or lumbar spinal cord compression requiring surgical intervention, as in this case.

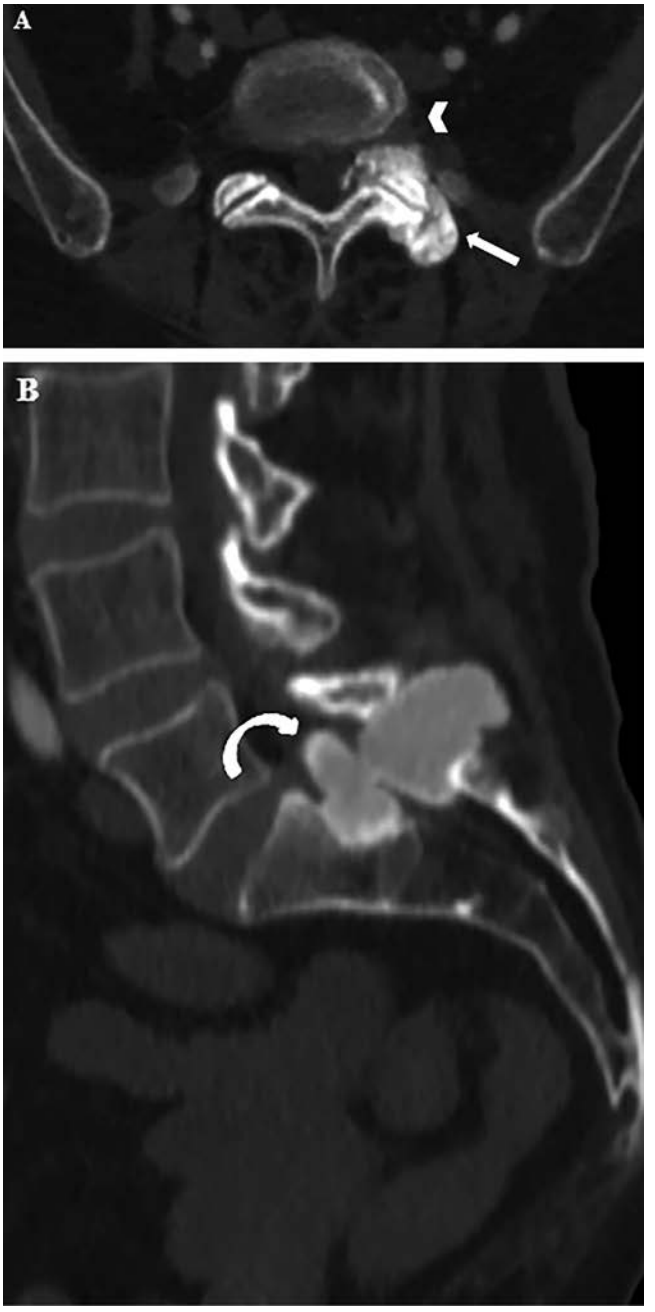

Figure 1. (A) Axial contrast-enhanced CT image of the spine showing protruding calcified masses (white arrow) arising from the left facet joint, compressing the left L5 nerve root (arrowhead). (B) Sagittal contrast-enhanced CT image showing intraspinal calcific masses (curved white arrow) causing spinal stenosis. CT: computed tomography.

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