Cervical Spine Calcinosis in Systemic Sclerosis

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Subcutaneous calcinosis is a well-recognized manifestation of systemic sclerosis (SSc), and is clinically apparent in about 25% of patients. It occurs in both limited and diffuse cutaneous disease, but is more common in patients with limited cutaneous SSc, particularly those with anti-centromere antibody¹. The exact mechanism of calcinosis in SSc is unknown and currently there is no approved effective therapy. Although calcinosis usually occurs at pressure points (for example, over elbows and knees), spinal calcinosis has also been reported and may occur more

frequently than previously thought^{2,3}. We describe a case of voluminous spinal calcinosis, diagnosed incidentally on barium swallow and then confirmed with computerized tomography (CT).

A 64-year-old woman was diagnosed as having diffuse cutaneous SSc 7 years previously on the basis of Raynaud's phenomenon, dysphagia/esophageal reflux, skin thickening, interstitial lung disease, and anti-Scl-70 positivity. She underwent a barium swallow (Figure 1) because of increasing dysphagia and choking with fluids. She had been

Figure 1. Barium swallow results. Aspiration is visible and also the cervical spine abnormality.

Figure 2. CT scan of cervical spine. Maximum intensity projection. Calcinosis of C4 is visible (arrow) with corresponding axial image.

treated with mycophenolate mofetil for 3 years. Dual-energy x-ray absorptiometry scanning in 2010 showed osteopenia (T score hip was -2.3 and spine -1.4), which was treated with alendronate and calcium supplements. The barium swallow revealed a small amount of aspiration and abnormality at the cervical spine with C3/4 spondylolisthesis. CT imaging showed very extensive calcinosis (Figure 2). Physical examination revealed intact cervical movements and no neurological deficit. Laboratory data revealed normal serum calcium 2.30 mmol/l and vitamin D level 80.9 nmol/l.

The patient remains under longterm rheumatological followup.

Although soft-tissue calcinosis is common over pressure points in SSc, spinal calcification is less well recognized but can lead to neurological deficit requiring surgical intervention⁴. Surgical management of cervical spine calcinosis in patients with SSc has been reviewed by Smucker, *et al*⁵. Physicians should be aware of this rare but potentially life-changing complication.

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