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IMAGES OF SPINE CARE

Idiopathic ankylosis of lumbar spine after nonfusion surgery

A 50-year-old female with low back pain and claudication and magnetic resonance imaging showing lumbar canal stenosis (L4–L5 > L5–S1; Fig. 1), underwent L4–L5 laminectomy. She remained symptom-free after surgery for at least 7 years. Later, she had recurrent back pain and claudication with decreased sensation in left S1 dermatome. Computed tomography and magnetic resonance imaging of lumbar spine (Fig. 2) showed fusion of L2–L5 vertebrae with marginal syndesmophytes, disc calcification, and end plate sclerosis. Anterior and posterior longitudinal ligaments and ligamentum flavum were normal. There was no osteopenia. Rest of the spine, sacroiliac joints, teeth, and limbs were normal. Histocompatibility Leucocyte Antigen HLA-B27 was negative. 25 (OH) vitamin D3 level was lower (4.2 ng/mL). She later underwent L5–S1 foraminotomy, which relieved her symptoms.

Lumbar ankylosis or bamboo spine is noted in ankylosing spondylitis [1], diffuse idiopathic skeletal hyperostosis [2], or fluorosis [3]. Normal sacroiliac joints, negative HLA-B27, absence of morning stiffness, and localized lumbar involvement without osteopenia rule out ankylosing spondylitis [1]. Diffuse idiopathic skeletal hyperostosis is unlikely due to marginal type of syndesmophytes, absence of generalized spinal involvement, and normal anterior longitudinal ligament [2]. Fluorosis is also improbable because of normal teeth and limbs, absence of generalized sclerosis, and normal posterior longitudinal ligament [3]. This type of idiopathic lumbar ankylosis after nonfusion adjacent segment surgery has not been reported till date. It may be an exaggerated form of adjacent segment disease probably due to localized postoperative changes in biomechanics.

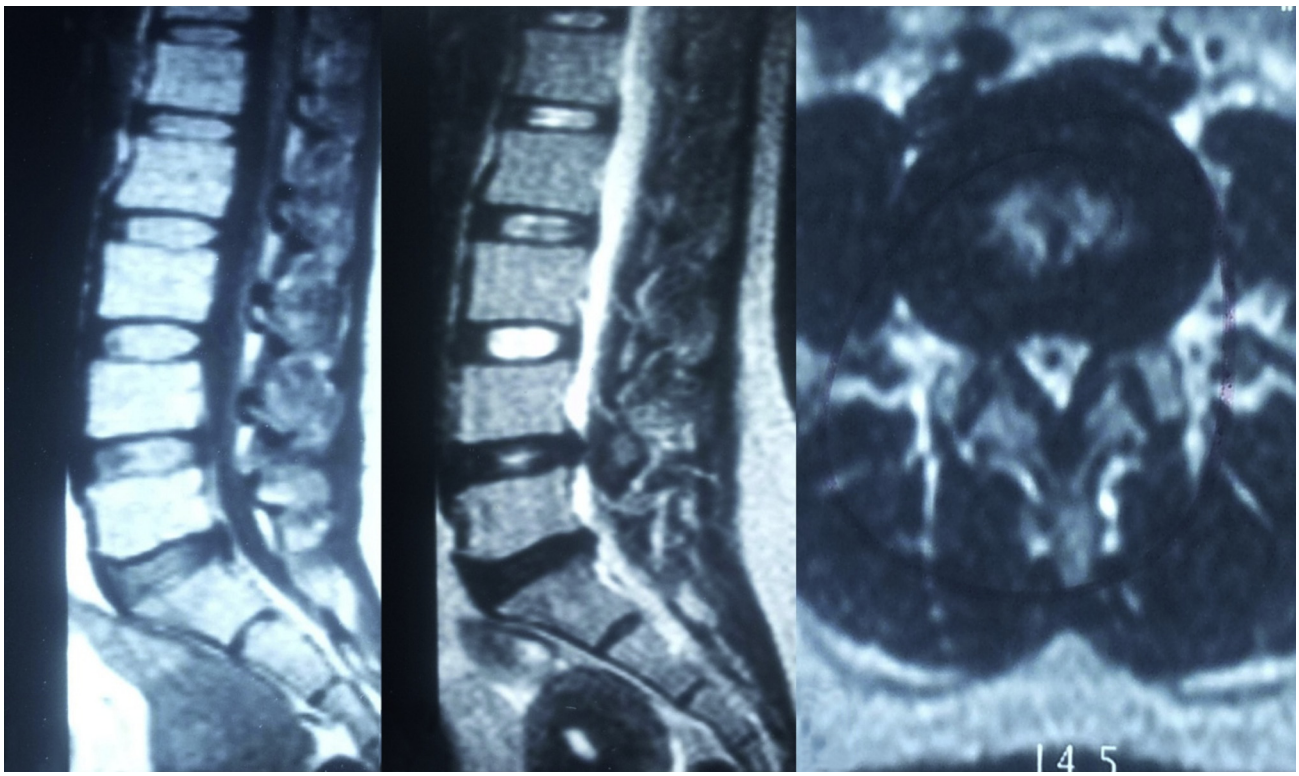

Fig. 1. Magnetic resonance images of lumbosacral spine before L4–L5 laminectomy (Left) sagittal T1W (Middle) sagittal T2W (Right) axial T2W.

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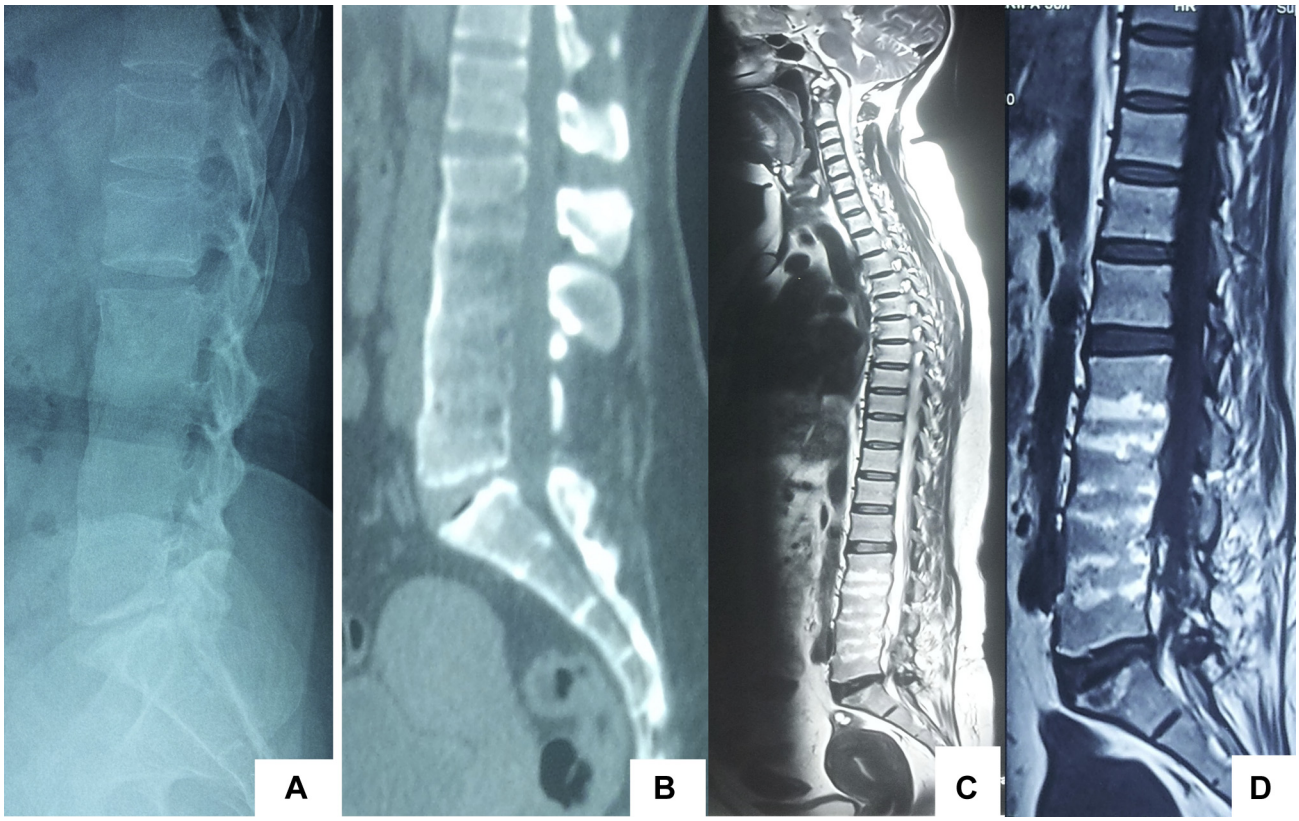

Fig. 2. Late postoperative images of spine (A) X-ray of lumbosacral spine—lateral view (B) computed tomography of lumbosacral spine—sagittal view (C) sagittal T2W of whole spine (D) sagittal TIW of lumbosacral spine.

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