



IMAGES OF SPINE CARE

Posterior lumbar subcutaneous edema

A 64-year-old female patient of 75 kg complained of low back and right lower limb pain. She found difficulty in walking, not exceeding 300 m.

Physical examination revealed a positive sign for Lasègues right lower limb maneuver and Bragard with Babinski sign being negative.

Magnetic resonance imaging results indicated lumbar stenosis and subcutaneous edema in the low back (Figure). During the surgery, the subcutaneous tissue in the low back was found to be brittle in texture and edematous. After skin incision, about 5 to 10 mL water-like liquid discharged, and erector spinae muscle was found to be infiltrated by fatty substance.

Although subcutaneous edema occurs in about 27.2% patients with low back pain, many are neglected by surgeons [1]. Possible causes such as infections, inflammatory

reactions, trauma, hydrostasis, and neoplastic changes can result in this condition. This finding is observed to be significantly associated with increasing age and weight among women.

This phenomenon could be related to the pathophysiological change that occurs during low back pain and the potential disorganization of connective tissue layers [2]. However, this subcutaneous edema should be differentiated from diffuse paraspinal muscular edema, often related to polymyositis, which should be carefully excluded before surgery [1].

References

- [1] Lakadamyali H, Tarhan NC, Ergun T, Cakir B, Agildere AM. STIR sequence for depiction of degenerative changes in posterior stabilizing elements in patients with lower back pain. *AJR Am J Roentgenol* 2008;191:973–9.
- [2] Langevin HM, Stevens-Tuttle D, Fox JR, Badger GJ, Bouffard NA, Krag MH, et al. Ultrasound evidence of altered lumbar connective tissue structure in human subjects with chronic low back pain. *BMC Musculoskelet Disord* 2009;10:151.

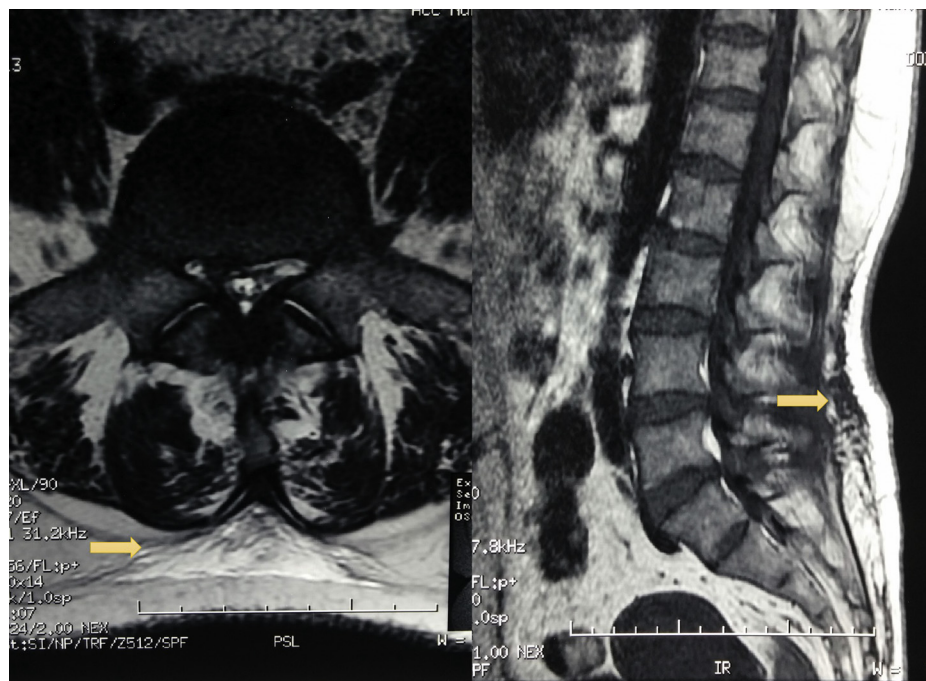


Figure. Arrow subcutaneous edema.

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