Teaching Video NeuroImage: Dissociation of Abdominal Reflexes in Rheumatoid Atlantoaxial Subluxation

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A 59-year-old woman with rheumatoid arthritis presented with progressive gait difficulties and electric shock-like pain triggered by neck flexion (Lhermitte's sign) for over six months. On examination, she had hyperreflexia in the four limbs and brisk deep abdominal reflexes with absent superficial abdominal reflexes (reflex dissociation) (Video 1). MRI showed spinal cord compression resulting from anterior subluxation of the atlas and retrodental pannus (synovial tissue proliferation) (Figure 1). Superficial abdominal reflexes may be absent in 20% of normal individuals¹. However, dissociation of abdominal reflexes suggests an upper motor neuron lesion above the T6 spinal segment².

**Figure 1. Spinal cord compression by atlantoaxial subluxation and retrodental pannus.** T2-weighted sagittal (A) spine MRI showing spinal cord compression and high signal intensity at the level of C1-C2 (dashed arrow) due to anterior subluxation of the atlas (solid arrow) and retrodental pannus (small arrow) in a patient with rheumatoid arthritis. T2-weighted axial (B) image confirms spinal cord compression by atlantoaxial subluxation (arrow, B).
Video 1. Dissociation of abdominal reflexes. Absent superficial abdominal reflexes with brisk deep abdominal reflexes.


[AZ 10.4.2021] 174816 Video 1 -- http://links.lww.com/WNL/B634

References
