Owl's eye sign

A rare neuroimaging finding in flail arm syndrome

Figure MRI cervical spine

(A, B) T2-weighted sagittal section shows spinal cord atrophy in the form of intramedullary hyperintensities from C2 to C8. (C) Corresponding owl's eye appearance on axial section.

A 22-year-old man presented with gradually progressive asymmetric bilateral upper extremity atrophy and weakness (proximal > distal and right > left) of 2 years' duration. He had fasciculations in both upper limbs and on electrophysiologic study there were active and chronic denervation changes. Cervical spine MRI showed linear T2 intramedullary hyperintensity (C2 to C8 in sagittal section), representing atrophy and gliosis of the anterior horn cells (figure, A and B), with the owl's eye sign in transverse section (figure, C). Flail arm syndrome (FAS) is a variant of amyotrophic lateral sclerosis (ALS) with an incidence of 10% of ALS cases.¹ FAS is a disease of male predominance (9:1). Median survival in FAS and ALS is 57 months and 39 months, respectively.¹

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