

Spinal nerve roots contrast enhancement following anti-GD2 antibody therapy in neuroblastoma

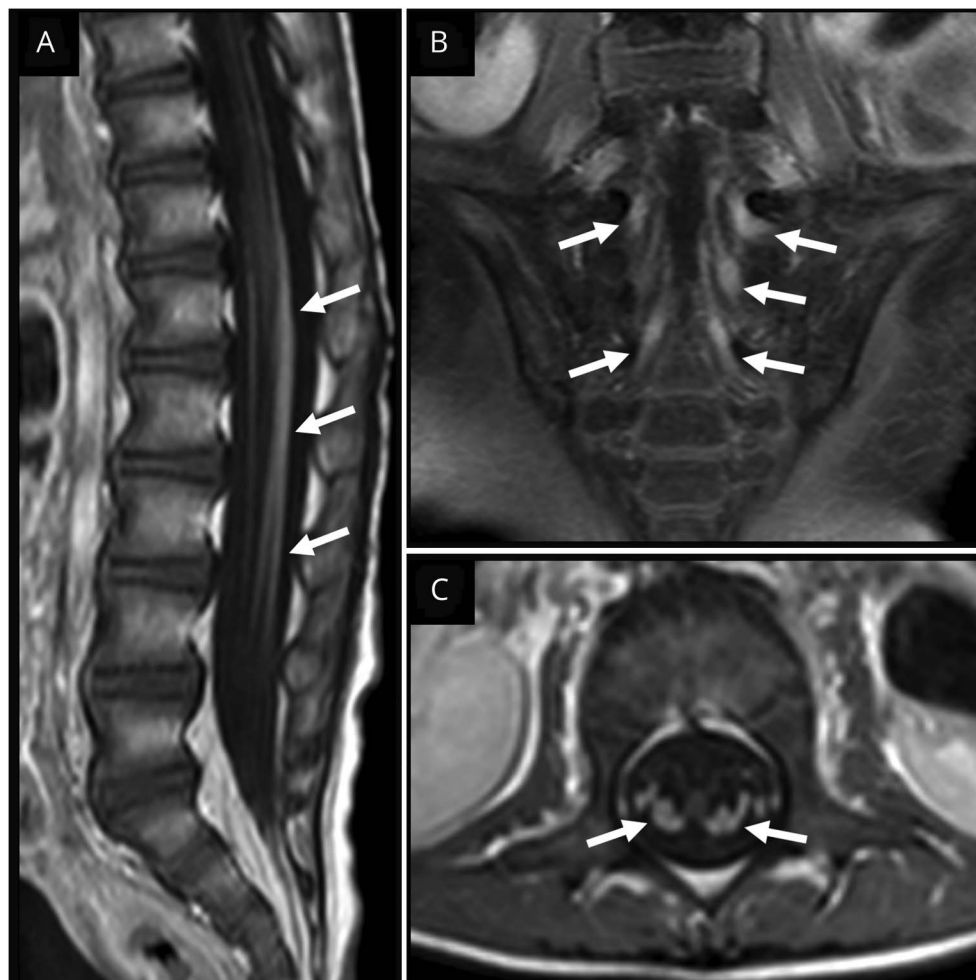
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Figure Spine MRI findings



Contrast-enhanced sagittal (A), coronal (B), and axial (C) T1-weighted images show enhancing lumbosacral nerves (arrows, A, B) with almost selective involvement of the cauda equina dorsal roots (arrows, C).

A 2-year-old boy with grade IV neuroblastoma presented with acute neurogenic bladder and hyposthenia after 2 weeks of treatment with anti-ganglioside-GD2 antibody (GD2-Ab). Spinal MRI findings are shown in the figure. On nerve conduction studies, there was sensorimotor demyelinating polyneuropathy with secondary axonal features, without conduction block. CSF

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examination revealed albuminocytologic dissociation. Sensorimotor polyneuropathy is a potential neurotoxic effect of anti-GD2-Ab.¹ Spinal nerves contrast enhancement might be related to the binding of anti-GD2-Ab to spinal nerves myelin, determining active myelin breakdown. Anti-GD2-Ab toxicity should be included in the differential diagnosis of spinal nerve root contrast enhancement in children.²

Author contributions

Giovanni Morana: drafting/revising the manuscript, study concept, acquisition of radiologic data. Paola Lanteri: drafting/revising the manuscript, acquisition of electrophysiologic data. Domenico Tortora: drafting/revising the manuscript, study design, acquisition of radiologic data. Carola Martinetti: drafting/revising the manuscript, acquisition of radiologic

data. Alberto Garaventa: drafting/revising the manuscript, study concept, study supervision.

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Disclosure

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