

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

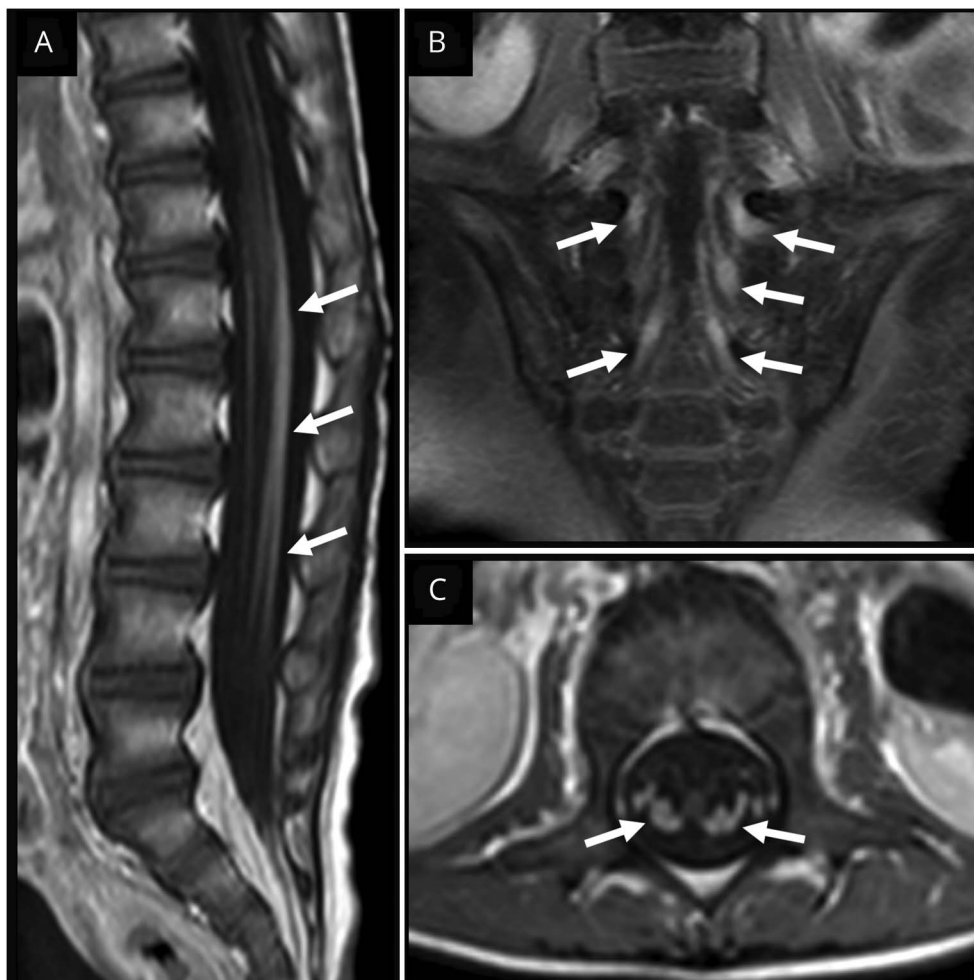
Giovanni Morana, MD, PhD, Paola Lanteri, MD, Domenico Tortora, MD, Carola Martinetti, MD, and Alberto Garaventa, MD

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Correspondence

Dr. Morana
giovannimorana@gaslini.org

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

From the Istituto Giannina Gaslini, Genoa, Italy.

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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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References

1. Yuki N, Yamada M, Tagawa Y, et al. Pathogenesis of the neurotoxicity caused by anti-GD2 antibody therapy. *J Neurol Sci* 1997;149:127–130.
2. Kontzialis M, Poretti A, Michell H, et al. Spinal nerve root enhancement on MRI scans in children: a review. *J Neuroimaging* 2016;26:169–179.

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