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## SCIENTIFIC LETTER

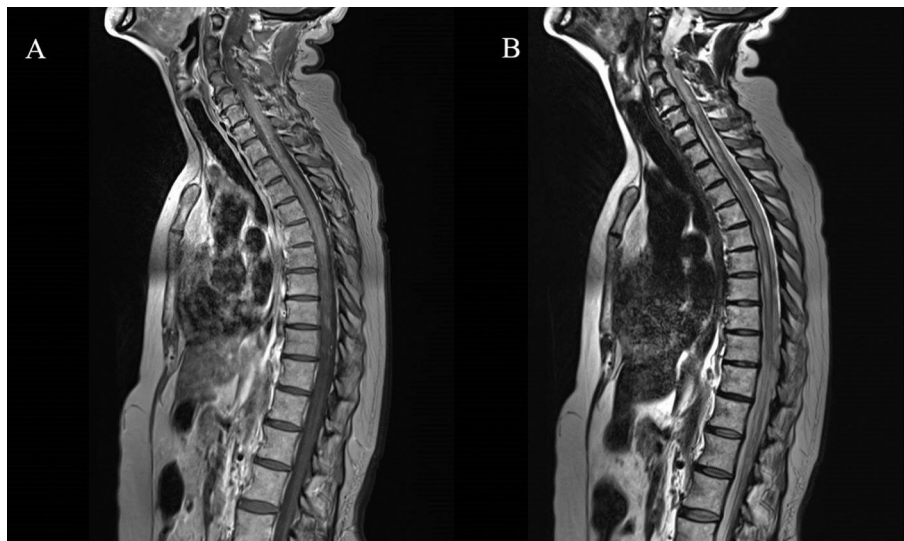
### Area postrema syndrome and longitudinally extensive transverse myelitis in neuromyelitis optica



### Síndrome del área postrema y mielitis longitudinalmente extensa en Neuromielitis óptica

We present the case of a 56-year-old woman who visited the emergency department due to an epigastric sensation of electricity irradiating around the waist. Symptoms had progressed for 2 weeks with hiccups, paraesthesia from the feet to the nipples, dyspnoea, and impaired gait. Physical examination revealed marked paraparesis with pyramidal signs in the lower limbs, absence of abdominal reflex, and hypoaesthesia below the T4 sensory level. CSF analysis revealed aseptic meningitis. MRI revealed longitudinally

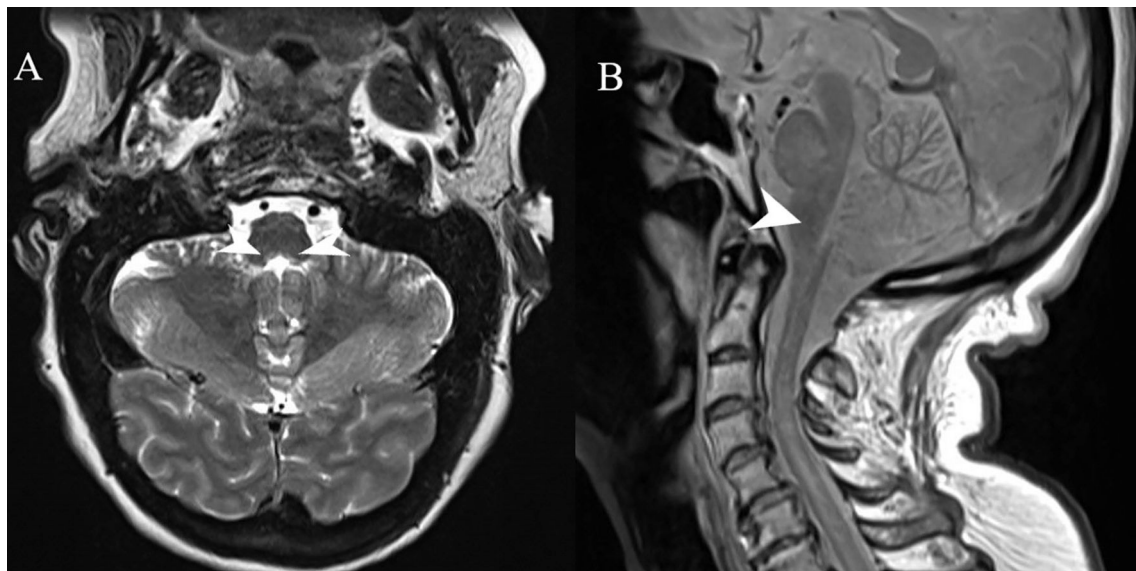
extensive transverse myelitis, extending from the medullopontine junction to the eleventh thoracic vertebra; involvement was predominantly central, and the area postrema displayed gadolinium uptake (Figs. 1 and 2). The patient was administered 5 high-dose methylprednisolone pulses; from the third day, treatment was started with plasmapheresis, with the patient becoming clinically stable after 7 sessions. She required non-invasive mechanical stimulation with continuous positive airway pressure overnight, and lost urinary and anal sphincter control. Determination of anti-aquaporin-4 antibodies yielded positive results. Subsequently, she presented loss of visual acuity in the right eye, pain with extraocular movement, and optic disc oedema. Methylprednisolone pulse therapy was administered to preserve visual acuity; an MRI study revealed contrast uptake in the right optic nerve. Having ruled out other causes, we established a diagnosis of neuromyelitis optica, displaying all 3 cardinal symptoms (area postrema syndrome, acute myelitis, and optic neuritis) and positive antibody findings<sup>1,2</sup>. Rituximab was prescribed to prevent further attacks.



**Fig. 1** Longitudinally extensive transverse myelitis extending from the medullopontine junction to the level of the T11 vertebra. (A) T2-weighted sagittal slice. (B) Gadolinium-enhanced sagittal slice.

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**Fig. 2** Area postrema syndrome. (A) T2-weighted axial slice showing hyperintensity in the area postrema (arrows). (B) T2-weighted sagittal slice showing hyperintensity in the area postrema (arrow).

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## Consent for publication

The patient gave written informed consent for the publication of her clinical case.

## Ethical statement

The article meets the ethical standards of the journal *Neurology Perspectives*. A formal ethics statement was submitted to the journal *Neurology Perspectives*.

## Declaration of competing interest

The authors have no conflicts of interest to declare.

## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.neurop.2024.100162>.

## References

1. Jarius S, Paul F, Weinshenker BG, Levy M, Kim HJ, Wildemann B. Neuromyelitis optica. *Nat Rev Dis Primers*. 2020;6(1):85.
2. Clarke L, Arnett S, Lilley K, Liao J, Bhuta S, Broadley SA. Magnetic resonance imaging in neuromyelitis optica spectrum disorder. *Clin Exp Immunol*. 2021 Dec;206(3):251–65. <https://doi.org/10.1111/cei.13630>. Epub 2021 Jul 6.

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