Neurological Sciences (2023) 44:1099
https://doi.org/10.1007/s10072-022-06503-z

LETTER TO THE EDITOR

Considering a new clinical presentation of the anti-Tr/DNER antibody-associated cerebellar ataxia

Igor Gusmão Campana[1] · **Guilherme Diogo Silva**[1]

Received: 3 October 2022 / Accepted: 7 November 2022 / Published online: 16 November 2022

Dear Editor-in-Chief,

We read with interest the article published by Cai and colleagues on anti-Tr/DNER antibody-associated cerebellar ataxia [1]. Three out of 500 patients with unidentified cerebellar ataxia tested positive for anti-Tr/DNER antibodies. Immunotherapy was effective in all three patients, making the diagnosis of anti-Tr/DNER antibody-associated cerebellar ataxia important in the differential diagnosis of unidentified cerebellar ataxia.

However, the three patients published by Cai and colleagues had atypical features for the classical presentation of the anti-Tr/DNER antibody-associated cerebellar ataxia. A systematic review of all published cases [2] found that 81% of patients were male, 91% had a paraneoplastic presentation, and only 41% had significant neurological improvement with immunotherapy. The three reported cases by Cai and colleagues were female, none had an associated tumor, and all patients had an effective response to immunotherapy.

Cai and colleagues considered that they found an atypical clinical presentation because of the short duration of follow-up and the early diagnosis. We propose an alternative explanation. In other paraneoplastic syndromes, non-tumor variants of the diseases were described with different demographic and therapeutic features. For example, although the most common presentation of the Lambert Eaton syndrome is in middle-aged males with small cell lung cancer, a non-tumor variant that predominates in women and presents a higher response to immunotherapy was described [3]. Non-tumor Lambert Eaton syndrome has a genetic association with HLA-D8-DR3 and an increased susceptibility to autoimmune diseases in patients with the disease and their family members [4], reinforcing an immunogenetic mechanism for this variant of the disease.

Future studies should consider a better demographic, clinical, therapeutic, and immunogenetic characterization of non-tumor anti-Tr/DNER antibody-associated ataxia.

✉ Igor Gusmão Campana
igor.campana@hc.fm.usp.br

[1] University of São Paulo, Doutor Enéas de Carvalho Aguiar, São Paulo 255, Brazil

Author contribution Igor Gusmão Campana: Substantial contributions to the conception or design of the work and drafting of the work

Guilherme Diogo Silva: Substantial contributions to the conception or design of the work and major revision for important intellectual content

Declarations

Ethical approval None.

Conflicts of interest The authors declare no competing interests.

Informed consent None.

References

1. Cai Y, Liu J, Ren H, Shi F, Che J, Geng Q et al (2022) Anti-Tr/DNER antibody–associated cerebellar ataxia: three rare cases report and literature review. Neurol Sci. https://doi.org/10.1007/s10072-022-06389-x
2. Campana IG, Silva GD (2021) Anti-Tr/DNER antibody-associated cerebellar ataxia: a systematic review. Cerebellum. https://doi.org/10.1007/s12311-021-01346-4
3. Titulaer MJ, Lang B, Verschuuren JJGM (2022) Lambert-Eaton myasthenic syndrome: from clinical characteristics to therapeutic strategies. Lancet Neurol 10(12):1098–1107. https://doi.org/10.1016/S1474-4422(11)70245-9
4. Wirtz PW, Bradshaw J, Wintzen AR, Verschuuren JJ (2004) Associated autoimmune diseases in patients with the Lambert-Eaton myasthenic syndrome and their families. J Neurol 251(10):1255–1259. https://doi.org/10.1007/s00415-004-0528-7