

Absence of latitudinal gradient in oligoclonal bands prevalence in Argentina

Abstract

Background: Like MS prevalence, oligoclonal bands (OCB) frequency seems to follow a latitudinal gradient. Argentina is extensive, latitude-wise, and previous studies have not found an MS prevalence latitudinal gradient. Our aim is to describe OCB prevalence in MS, clinically isolated syndrome (CIS) and radiologically isolated syndrome (RIS) patients included in the Argentinean MS and NMOSD registry (RelevarEM) and to investigate if it follows a latitudinal gradient.

Methods: For each province, an average latitude was calculated, and OCB frequency was investigated. Multivariate logistical regression analysis and linear correlation were performed. Statistical analysis was repeated after excluding patients from centers using isoelectric focusing (IEF) in less than 95% of patients (CwIEF<95).

Results: We included 2866 patients. OCB were positive in 73.9% of patients. No association or correlation were found between OCB and latitude of residence, even after excluding patients from (CwIEF<95).

Conclusion: OCB positivity does not follow a latitudinal gradient in Argentina. Also, OCB positivity is lower than described in other world regions.

Keywords: Clinically isolated syndrome; Epidemiology; Latitudinal gradient; Multiple sclerosis; Oligoclonal bands; Radiologically isolated syndrome.

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