Key Summary of Conference Abstract

Myelin Oligodendrocyte Glycoprotein (MOG) Antibodies: Results From First 1,045 Specimens Tested at a Clinical Reference Laboratory

Background

- Myelin oligodendrocyte glycoprotein-associated diseases (MOG-AD) are a rare group of autoimmune diseases that damage the central nervous system.[1]
- The clinical presentation of MOG-AD can resemble other diseases, such as neuromyelitis optica and multiple sclerosis. Differentiating MOG-AD from these diseases is important because prognosis and disease management differ.[1]
- The prevalence of MOG antibody among patients is not well established, as most studies that report prevalence are relatively small.
- **Objective:** The investigators assessed the prevalence of MOG antibody positivity among specimens submitted to a clinical reference laboratory.

Methods

- This retrospective study included deidentified results from the first 1,045 specimens submitted to Athena Diagnostics® for MOG antibody testing.
- MOG antibody status was determined using a cell-based immunofluorescence assay.
- The prevalence of MOG antibody positivity among submitted specimens was determined and associations with the following were examined: sex, age, and specimen type (serum vs cerebrospinal fluid [CSF]).

Results

- Data for 6 patients were excluded owing to missing sex or age data, leaving data for 1,039 patients. Mean age was 42±17 years; 64% of patients were female.
- MOG antibody test results were positive for 62 (6%) specimens, negative for 966 (93%), and inconclusive for 11 (1%).
- MOG Ab positivity rates were
  - Higher among males (7.6%) than females (5.1%), but the difference was not statistically significant (*P*=0.11)
  - Higher among children ≤12 years of age (13%) than older adults (5.6%; *P*=0.03)
  - Higher among serum (7.2%) than CSF specimens (1.0%; *P*=.001)

Conclusions

- Based on over 1,000 test results, MOG antibody results were positive in 6% of specimens submitted to a clinical reference laboratory.
- The findings of this study suggest MOG antibody testing has the potential to help differentiate MOG-AD from similar diseases.

Poster scheduled for presentation at the American Academy of Neurology Annual Meeting (conference canceled; abstract available online)

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Webpage
https://index.mirasmart.com/AAN2020/PDFfiles/AAN2020-004606.html

References

1. Jarius S, Pul F, Wildemann B. *J Neuroinflammation*. 2018;15:134.