

Anti-NMDA encephalitis

There are many causes of encephalitis, but the largest single category is still “unknown cause” – and that category includes encephalitis lethargica (EL). But, within the last couple of years, there has been a lot of progress in research on autoimmune encephalitis, which is caused by production of “rogue” antibodies that attack cells within the brain. These antibodies include antibodies to the N-methyl-D-aspartate subtype of glutamate receptor (anti-NMDA receptor antibodies), and it has been suggested that encephalitis lethargica (EL) is actually anti-NMDA encephalitis, though this idea still needs to be confirmed. Anti-NMDA antibodies can be detected with a simple, recently developed test, so it’s now relatively easy to diagnose anti-NMDA encephalitis. A lot of research is still going on, but if EL really is the same as anti-NMDA encephalitis, it seems very likely that the term encephalitis lethargica will fall into disuse as a diagnosis.

Anti-NMDA encephalitis is treatable, if diagnosed early. Also, its original cause (i.e., the infectious agent that causes the body to produce the anti-NMDA antibodies) will likely be identified, although it may never be possible to prove conclusively that modern EL (assuming it is anti-NMDA encephalitis) is identical with EL of the epidemic period.

References

- (1) J. Granerod et al., Causes of encephalitis and differences in their clinical presentations in England: a multicentre, population-based prospective study, *The Lancet*, Volume 10, Issue 12, Pages 835 - 844, December 2010.
- (2) M.M. Gable et al., Anti-NMDA receptor encephalitis: report of ten cases and comparison with viral encephalitis, *European Journal of Clinical Microbiology and Infectious Diseases*, Vol 28, Pages 1421–1429, 2009.
- (3) Irani et al., N-Methyl-D-aspartate antibody encephalitis: temporal progression of clinical and paraclinical observations in a predominantly non-paraneoplastic disorder of both sexes, *Brain*, Vol. 133, Pages 1655–1667, 2010.