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# AUTOIMMUNE ENCEPHALITIS - A REVIEW

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Abstract: Autoimmune encephalitis is a group of immune mediated diseases, with inflammation of the central nervous system that demonstrates a widely variable spectrum of clinical presentations. It is caused by binding of antibodies to the intracellular/cell-surface antigens, producing typical syndromes. Anti-N-methyl-D-aspartate receptor encephalitis is the most common form in children and the clinical presentation differs from that of adults. Children present with alteration in consciousness, seizures, movement disorders, behavioral and sleep disturbances. Investigations, especially antibody detection, along with suggestive history aids in the diagnosis. Treatment is based on immunotherapy and early initiation of therapy is associated with better outcome.

**Keywords:** Anti-NMDAR encephalitis, Children, Movement disorders, Immunomodulation.

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### **Points to Remember**

- AIE in children as a group is more common than individual viral etiologies of encephalitis in children.
- Anti-NMDAR encephalitis is the most common autoimmune encephalitis in children.
- AIE in children is commonly post-infectious in etiology and is less commonly associated with malignancy, unlike in adults.
- Characteristic clinical features include seizures, movement disorders (peri-oral dyskinesias, choreoathetoid movements), behavioral issues and sleep disturbances.
- The antibodies are detected with almost equal sensitivity in both serum and CSF, except in anti-NMDA encephalitis, where the sensitivity in CSF is marginally better.
- Treatment options include steroids, IVIG, plasmapheresis and in refractory cases, rituximab and cyclophosphamide.
- Early initiation of immunotherapy leads to a better outcome.

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