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Brief Report: Immune Factors in Autism: A Critical Review

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Abstract

Pervasive developmental disorders represent a group of neurodevelopmental disorders that affect children early in their development. Autistic disorder is the best described of these disorders, yet even this term covers a broad group of clinical presentations. Various immune system abnormalities, including

autoimmunity and defects in different subsets of immune cells, have been reported in children with autistic disorder, suggesting that immune factors may play a role in the development of autism. Based on anecdotal observation, vaccination was proposed to cause autism in some children, but several controlled studies have failed to support this claim. Intravenous immunoglobulin infusions has been tested as immunotherapy for autism, although the preliminary results are inconclusive and there is a risk of potentially fatal transmission of blood-borne pathogens. To examine this issue, intensive well-controlled epidemiological and bench studies need to be carried out in defined and carefully controlled study subjects to establish the cellular and molecular basis of autism, against which the effects of each proposed immune factor can be examined.



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