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Autism pathogenesis: Piecing it all together, from end to beginning …

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Abstract

© 2018, Pharmainfo Publications. All rights reserved. Increased extra-axial cerebrospinal fluid (EA-CSF) have been observed in imaging studies of infant brains, who go on to develop autism. Folate deficiency can cause defects in neural development that can affect CSF production and drainage. Folate receptor alpha antibodies (FRAA) are observed in 75% of autism patients. Maternal FRAA have also been observed in the case of neural tube defects. Folate deficiency can cause aluminum accumulation in the brain. Autistic brains have been shown to accumulate aluminum. FRAA in the child or mother can therefore explain all the observations. Further, autism patients have a higher genetic risk for cancer but have lower cancer rates. Many cancer cells express folate receptor alpha to transport folate required for rapid growth. Once again FRAA in autism can thus explain lower rates of cancer occurrence as FRAA block FRA expressed on cancer cells, affecting folate transport. A majority of FRAA are of the IgG4 subclass and bind with higher affinity to the bovine folate receptor than the human folate receptor. The human and bovine FR have 90% protein sequence homology. From allergies and parasite infections we know that IgG4 is the second stage of the immune response. The first stage is IgE against FRA. The US Institute of Medicine concluded that antigens in vaccines do cause IgE mediated sensitization. Many vaccines contain cow's milk proteins, one of which is the bovine folate receptor protein. Bovine casein and casamino acids used as growth media for vaccine manufacture are derived from cow's milk. The solution for vaccine-induced IgE against FRA, is to immediately remove all non-target proteins from all vaccines by using processes such as affinity chromatography.

Keywords

Allergy, Aluminum, Autism, Bovine milk, Children, Folate receptor alpha, Helminth infection, IgE, IgG4, Vaccines

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