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Crohn's disease after in-utero measles virus exposure

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Summary

Background

An epidemiological association between Crohn's disease and measles virus exposure in early life has been suggested in case-control studies.

Methods

To determine absolute risk estimates for in-utero measles virus exposure and Crohn's disease, maternity charts for all 25 000 deliveries at University Hospital, Uppsala, between 1940–49 were reviewed: four cases of measles infection in the mother during pregnancy were identified. The children and two of their mothers were interviewed and case records reviewed. Three offspring had undergone multiple intestinal resections; tissue from these cases were examined by routine histology, and for measles-virus nucleoprotein antigen by immunohistochemistry and immunogold electronmicroscopy.

Findings

Three of the four children had Crohn's disease. In each the disease was preceded by recurrent, antibiotic-resistant pneumonia. They had extensive ileal and colonic disease; two patients required nous feeding. The only offspring to have had measles as a child did not develop Crohn's disease s virus antigen was detected in foci of granulomatous and lymphocytic inflammat all

children with Crohn's disease.

Interpretation

The data indicate that exposure of mothers to measles virus in utero is a risk factor for Crohn's disease in their children. Exposure at this time may lead to persistent infection, or modify the response to infection in later life, leading to persistence of measles virus.

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