

Prognostic value of immunologic parameters in neonates

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The identification at birth, during the neonatal period, or in infancy of individuals who will develop asthma, hay fever, or atopic dermatitis still remains a challenge for paediatric allergists. A positive history for atopic diseases in first-degree relatives has been shown to be a risk factor for subsequent disease in children. In this case, the parental phenotype is associated with the phenotype in children, suggesting the presence of phenotype-specific genes. For asthma, a maternal history was demonstrated to be of stronger influence than a paternal history.

Earlier expectations regarding elevated cord-blood IgE levels as potential predictors have not been confirmed. Although elevated cord-blood concentrations of IgE are a risk factor for the development of specific IgE responses during the first years of life, they do not predict clinical problems in children. Patterns of cytokine production by cord-blood lymphocytes have been shown to be associated with the development of atopic disease early in childhood; however, they are not suitable for individual prediction.

Infantile IgE antibody responses to food proteins (hen's egg, cow's milk) have been found to predict not only IgE responses to inhalant allergens during childhood, but also the development of asthma by the age of 7 years. They should be taken into account as potential strategies of secondary prevention.

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