Chronic Chlamydia pneumoniae infection and bronchial asthma: is there a link?


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Abstract

PURPOSE:

Besides well-defined environmental causes, accumulating evidence suggests that respiratory tract infections play an important role in the pathogenesis of asthma. Among these Chlamydia pneumoniae infection has been discussed as possibly inducing the development of asthma.

METHODS:

This study was designed to investigate the presence of anti chlamydial IgG, IgA, and IgM antibodies by ELISA in serum samples of 60 adults with a clinical history of asthma and 100 healthy age and sex matched controls. All the samples positive for Chlamydial genus specific IgG antibodies were then subjected to Chlamydia pneumoniae species specific IgG antibody ELISA.

RESULTS:

The IgG anti chlamydial antibody-positivity rate in the patients with bronchial asthma (80%) was significantly higher in all age groups than that in the healthy age and sex matched controls (59%). No significant association was observed for IgA and IgM anti chlamydial antibodies. C. pneumoniae species specific IgG antibody seroprevalence was also found to be significantly higher in all age groups in comparison to controls (61.66% vs 38%).

CONCLUSIONS:

Serological evidence of chronic infection with C. pneumoniae was more frequent in patients with asthma compared with control subjects. Our results support the correlation of bronchial asthma and chronic infection with C. pneumoniae in Indian population.