SEROLOGICAL MARKERS OF CHLAMYDIA PNEUMONIAE, CYTOMEGALOVIRUS AND HELICOBACTER PYLORI INFECTION IN DIABETIC AND NON-DIABETIC PATIENTS WITH UNSTABLE ANGINA PECTORIS

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SUMMARY

The possible role of inflammation in coronary artery disease (CAD) is being recognised, while markers of inflammation (e.g., CRP) and infection with Chlamydia pneumoniae (C. pneumoniae), cytomegalovirus (CMV) and Helicobacter pylori (H. pylori) have been proposed as risk factors for CAD. However, these associations require further evaluation. It is a known fact that diabetic patients suffer from impaired immune response to some pathogens and a high incidence of atherosclerosis.

In this case-control study we investigated serological markers of infection with C. pneumoniae, CMV, and H. pylori in a group of 140 patients with unstable angina pectoris (UA), 52 of them having type 2 diabetes mellitus, and in a matched control group. Anamnestic (IgG) and acute infection (IgA) antibodies against the above agents were tested using ELISA or indirect immunofluorescence tests.

In patients with UA we found a significantly higher seroprevalence and titres of IgG antibodies against C. pneumoniae (p=0.04) and increased titres of IgG antibodies against CMV (p=0.007). No differences were found in IgA antibody response to these pathogens.

Antibody response to H. pylori was similar in both groups tested. In diabetic patients with UA, the frequency of group-common IgG antibodies against C. pneumoniae was higher than in the non-diabetic UA patients. The other serological markers studied were comparable in the patients with or without diabetes mellitus.

Our findings confirmed association of C. pneumoniae and CMV with cardiovascular heart disease. Moreover, diabetes mellitus may predispose the patients to C. pneumoniae infection. However, serological markers observed do not indicate that destabilisation of angina pectoris is associated with acute C. pneumoniae or CMV infection. No relationship was found between UA and H. pylori infection.

Key words: infection, coronary artery disease, unstable angina, diabetes mellitus

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