ASSOCIATION OF MYCOPLASMA PNEUMONIAE INFECTION WITH ISCHEMIC HEART DISEASES

INTRODUCTION

Association of atherosclerosis and coronary artery disease—well known main pathophysiological basis for ischemic heart diseases—and Mycoplasma infection and role in major risk factors such as high plasmatic level of low-density lipoprotein, low plasma level of high-density lipoprotein, cigarette smoking, hyperhomocysteinemia, and diabetes mellitus. Infections with few infectious agents such as Mycoplasma pneumoniae that might associated with atherosclerosis consider as an other risk factor for ischemic heart diseases. Aim of this study is to investigate the role of this organism in its association to the risk of exposure to Mycoplasma pneumoniae infection for ischemic heart diseases in Saudi Arabia.

MATERIAL AND METHODS

A case-control study is conducted in Asser Central Hospital in Al Hasa (city in southwest region of Saudi Arabia). The unit patient selected simple simple random sampling technique they were in two groups: first group for case group, included 26 adults patients were admitted in hospital by diagnosis of IHF including unstable angina and myocardial infarction STEMI, NSTEMI: Inclusion Criteria: Infast group: Typical chest pain for IHF, positive Electrocardiogram (ECG) and (+) serum biomarkers for myocardial infarction. The second group (control group), include 36 healthy adults patients who had no measurable risk factors. History of ischemic heart diseases (IH) and they matched by first group, for age index. IgG antibodies to Mycoplasma pneumoniae were assayed by ELISA technics.

RESULTS

Age and sex of the patients in case group was 52.6±11.19 and in control group was 54.8±13.65. There was not significant statistical difference for age between two groups (p=0.36). In the two groups, 15 cases out of 46 and in control group 20 cases were positive for anti Mycoplasma antibodies and in 34 cases, there was significance statistical difference for antimycoplasma antibodies level (Figure 2). In the two groups (p<0.05) and the relative risk of mycoplasma infection for ischemic heart diseases estimated to be 5. In this study of 46 patients with Mycoplasma infection, 25 (52%) patients had STEMI and 20 (50%) patients had NSTEMI. In 11 (24%) patients had unstable angina. (Figure 3).

CONCLUSION

It seems that Mycoplasma pneumoniae infection is a risk factor for ischemic heart diseases, in Saudi population. This is the first report study of such a disease in Saudi Arabia. Further studies will needed to estimate the risk of contraction by Mycoplasma pneumoniae and Chlamydia pneumoniae and also better to evaluate the effects of the risk of these infection and conventional risk factors for ischemic heart diseases in this country.