

МЕДИЦИНСКИ УНИВЕРСИТЕТ ПЛЕВЕН
КАТЕДРА “ДЕРМАТОЛОГИЯ, ВЕНЕРОЛОГИЯ, АЛЕРГОЛОГИЯ
И КЛИНИЧНА ИМУНОЛОГИЯ”

д-р ЛЮДМИЛ ГЕОРГИЕВ ТЕРЗИЕВ

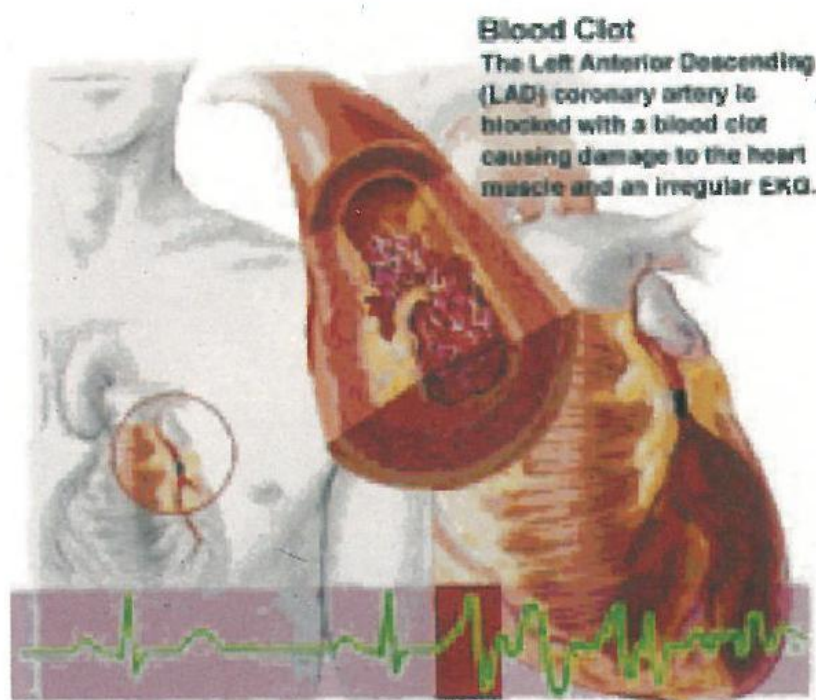
АНТИФОСФОЛИПИДЕН СИНДРОМ И ОСТЪР
МИОКАРДЕН ИНФАРКТ

А В Т О Р Е Ф Е Р А Т

на дисертационен труд

за присъждане на образователна и научна степен

“Доктор”



Плевен
2005г.

СНС ПО МИКРОБИОЛОГИЯ, ВИРУСОЛОГИЯ И
ИМУНОЛОГИЯ ПРИ ВАК

д-р ЛЮДМИЛ ГЕОРГИЕВ ТЕРЗИЕВ

**АНТИФОСФОЛИПИДЕН СИНДРОМ И ОСТЪР
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Научна специалност 01.06.23 «Имунология»

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ANNOTATION

Background: Acute coronary incidents, including myocardial infarction are a major medicosocial problem worldwide. In Bulgaria 15 000 people develop acute myocardial infarction (AMI). During the last 25 years, Bulgaria has ranked among the top positions in the world regarding morbidity and mortality associated with acute coronary manifestations, especially among males in young age. At the same time, approximately 2.5 million people in the USA and Europe suffer from various clinical manifestations of antiphospholipid syndrome (APS). In 14% to 21%, AMI is one of these manifestations.

Objective: The aim of the dissertation was to describe the frequency of APS, humoral immune response (total immunoglobulins, antiphospholipid antibodies, antibodies against chlamydial and mycoplasma antigens) and thrombocytic activation in patients with AMI in view of determining the etiology of this acute coronary state and establishing clinical laboratory criteria in diagnosing APS in AMI. Eight tasks were proposed and executed.

Material and methods: The study was conducted from 2000 to 2004 and included 135 patients and controls. The 968 investigations carried out covered 16 different indices, including: serological immunologic investigations for quantitative determination of human serum immunoglobulins, classes IgG, IgM, IgA in serum and C3 and C4 fractions of human serum complement; antiphospholipid antibodies (ELISA) – anticardiolipin classes IgG and IgM, antibodies against β 2-glycoprotein 1, classes IgG and IgM, antibodies against *Chlamydia trachomatis* and *Mycoplasma pneumoniae*, class IgG.

The expression of CD31 on thrombocytes was measured using flow cytometric analysis. Coagulation tests were made. Biochemistry included serum levels of triglycerides and total cholesterol. Histological investigations were carried out. Statistical methods were used to process data.

Results: In patients with AMI and previous thrombotic incidents, the frequency of APS was 37.9%, and the presence of positive antiphospholipid antibodies in patients with acute coronary syndrome with no history of thrombotic incidents the frequency was 14.6%.

Fifty-five percent of the cases of sudden death in young patients without atherosclerotic changes in the coronary arteries were found positive for antiphospholipid antibodies.

Higher expression of thrombocytic adhesion marker was found in 95.4% patients with AMI and APS. In patients with AMI and APS, carriership of IgG antibodies against *Chlamydia trachomatis* was 36.4%. The same percentage of carriers were found for carriership of antibodies against *Mycoplasma pneumoniae*. In patients with AMI without history of thrombotic incidents the carriership of antibodies was 60% and 45%, respectively.

No significant differences were found regarding the levels of total cholesterol and triglycerides in the group of selected patients with AMI and APS and the group of patients with AMI with no history of thrombotic incidents. There were no significant differences in the levels of serum globulin C3 and C4 fractions found in patients with acute coronary syndrome, with or without APS.

Conclusion: Data was obtained about the frequency of APS in AMI patients (with or without previous thrombotic incidents) in Bulgaria.

AMI (with or without APS) often combines with chronic intracellular infections such as *Chlamydia trachomatis* and/or *Mycoplasma pneumoniae*.

The expression of thrombocytic adhesion molecule CD 31 is a highly informative method in evaluating the activation of thrombocytes in patients with APS, presenting with coronary thromboses. Conditions identified from history (AMI in young age without other pathological findings, females with AMI and history of miscarriages, patients with AMI accompanied by thrombotic incident) necessitate investigation of antiphospholipid antibodies. It is appropriate that this same group of patients undergo a complex immunological investigation that includes antiphospholipid antibodies (anticardiolipin and anti β 2-glycoprotein 1, classes IgG and IgM), thrombocytic expression of CD31 antibodies against microorganisms of the species *Chlamydia* and *Mycoplasma*.

🚧 A hypothesis was made about the possibility of synergic action of antiphospholipid antibodies and chronic intracellular infections with *Chlamydia trachomatis* and *Mycoplasma pneumoniae*.

Key words: antiphospholipid syndrome, antiphospholipid antibodies, anticardiolipin antibodies, acute myocardial infarction, β 2-glycoprotein I, *Chlamydia trachomatis*, *Mycoplasma pneumoniae*, sudden cardiac death.