

*Staphylococcus epidermidis* (OR 4.7; 95% CI, 1.09-19.83;  $p < 0.05$ ) as pathogens. We observed in both groups vegetations in more than 70% of patients, but in the group D, 19.4% vs 14.6% were affected more valves, with predominating in group D middle size vegetations 32.3% vs. 23.1% (OR 1.6; 95% CI, 0.67-3.73;  $p = 0.287$ ) and big size 12.9% vs 6.9% (OR 1.9; 95% CI, 0.57-6.95;  $p = 0.272$ ). The most affected valves in group D was the tricuspid one 12.9% vs 11.5% (OR 1.1; 95% CI, 0.35-3.69;  $p = 0.832$ ). Group D had an increased rate of CHF 61.3% vs 53.8% NYHA class III (OR 1.4; 95% CI, 0.61- 3.02;  $p = 0.453$ ) and class IV 25.8% vs 10.8% (OR 2.9; 95% CI, 1.08-7.66;  $p < 0.05$ ). Embolic events occurred in 61.3% in group D and in 14.6% of patients in alive group (OR 9.3; 95% CI, 3.87-22.1;  $p < 0.001$ ). Also, the renal damage was higher in group D, Acute Kidney Failure (AKF) 12.9% vs 3.1% (OR 4.7; 95% CI, 1.09-19.83;  $p < 0.05$ ), Chronic Kidney Disease (CKD) 38.7% vs 9.2% (OR 6.2; 95% CI, 2.44-15.8;  $p < 0.001$ ). Septic shock (SS) was more frequently in group D 29% vs. 4.6% (OR 8.5; 95% CI, 2.74-26.1;  $p < 0.001$ ).

**Conclusions.** According to Odds Ratio we found in our study 36 factors that can influence mortality in patients with infective endocarditis, nevertheless only 17 of them proved to have statistical significance difference. Therefore, these factors in our study were: Diabetes Mellitus (OR 4.0; 95% CI, 1.51-10.7;  $p < 0.05$ ); positive blood culture (OR 3.4; 95% CI, 1.51-7.67;  $p < 0.05$ ); *Staphylococcus aureus* (OR 4.4; 95% CI, 1.47-13.42;  $p < 0.05$ ); *Staphylococcus epidermidis* (OR 4.7; 95% CI, 1.09-19.83;  $p < 0.05$ ); Congestive Heart Failure class IV NYHA (OR 2.9; 95% CI, 1.08-7.66;  $p < 0.05$ ); embolic events (OR 9.3; 95% CI, 3.87-22.1;  $p < 0.001$ ) with the following clinically most important pulmonary embolism (OR 6.2; 95% CI, 2.17-17.9;  $p < 0.001$ ), stroke (OR 3.7; 95% CI, 1.17-11.5;  $p < 0.05$ ), Acute Kidney Failure (OR 4.7; 95% CI, 1.09-19.83;  $p < 0.05$ ), Chronic Kidney Disease (OR 6.2; 95% CI, 2.44-15.8;  $p < 0.001$ ) and Septic shock (OR 8.5; 95% CI, 2.74-26.1;  $p < 0.001$ ).

**Key words:** cardiology, Infective Endocarditis, mortality

### 230. THE TREATMENT OF DYSLIPIDEMIA IS INFLUENCED BY THE GENETIC MARKERS OR NOT

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**Introduction** Cardiovascular disease is the leading cause of morbidity and mortality in working-age patients. In the Republic of Moldova, 59% of mortality cases are due to cardiovascular diseases. In 29.4% of the adult population, have cholesterol levels above the normal limits, the latter being associated with the increased risk of cardiovascular deaths. Atherosclerosis and its most common consequences - ischemic heart disease and stroke - are and will continue to be the leading cause of death in the world for at least 20 years. Laboratory examinations on the lipid spectrum of the rural population of the Republic of Moldova included in the CINDI study found that 32.5% of people had hypercholesterolemia. For the reduction of blood levels of total cholesterol and LDL-cholesterol, statins, bile acid sequestrants and selective cholesterol absorption inhibitors are indicated. Initiation of a drug treatment with preparations that reduce lipids in the blood can lead to possible side effects. Patient compliance

is low due to insufficient effects of medication and adverse reactions, which requires an individualized approach to increase compliance.

**Aim of the study.** To analyze the usefulness of genetic biomarkers in the efficiency of statin treatment of patients with dyslipidemia.

In order to carry out the study we aim to characterize clinically and paraclinically the patients with dyslipidaemia, to determine the status of genetic and non-genetic biomarkers relevant to the clinical effects and metabolism of statins. Evaluation of pleiotropic efficacy, with evidence of adverse effects of statins. Estimating the usefulness of the studied biomarkers and elaborating practical recommendations for personalizing treatment with statins.

**Materials and methods.** The proposed study is a multicenter prospective one (SCM Sfânta Trime, Institute of Cardiology, University Clinic of Primary Health Care), based on the primary data accumulated from the clinical, instrumental and laboratory examination of patients with dyslipidaemia, treated in the above named institutions, selected according to the criteria of inclusion and exclusion, recruited in the study by the current doctors, with the explicit consent (in writing) of the patient. Biomarkers will be estimated in the USMF Genetics Laboratory Nicolae Testemitanu, and Invitro Diagnostic Medical Center.

The data will be accumulated during the active surveillance of up to 12 months from the moment of starting treatment with statins, as well as accessing the databases of the institutions involved in the study. To be evaluated: genetic markers at the sites that encode the metabolism factors of the known statins (N-demethyl; lactone; CYP2C9, P450; 2C19; 3A4; 2D6 and those associated with adverse reactions efficacy of antilipidemic treatment, pleiotropic effects (PC-R, IL -6, TNF), early signs of adverse reactions (CK-MB, ALT, AST), clinical manifestations of statin adverse reactions. The analysis of the results of the anti-slip treatment and the pleiotropic effects will be performed according to the porting of the studied biomarkers, using the procedures of descriptive, comparative (of the subgroup media) and discriminant (the effects of the biomarkers on the lipidogram changes following the treatment).

**Results.** For the first time in the south-eastern region of Europe, a multilateral data-based study focusing on the problem of personalized medicine in the field will be carried out

Multiple clinical trials (JUPITER, HOPE-3, etc.) have demonstrated the clinical efficacy of antilipidemic statins and found adverse reactions as well as the lack of expected effect on most participants. At the same time, the antiatherosclerotic effects of statins lately are also explained by their action on the chronic inflammatory process, atherosclerosis being treated as a systemic vasculitis, the last aspect being studied intensely at the present moment. At the same time, the specific factors that condition the size of the antilipidemic and pleiotropic effects of statins are little studied, and their application is limited only to the advanced clinics in Western Europe.

**Conclusions.** We are interested to determine a set of useful biomarkers for personalizing anti-slip treatment with statins, developing an algorithm for optimizing treatment with statins in patients with dyslipidemia. For the reduction of blood levels of total cholesterol and LDL-cholesterol, statins, bile acid sequestrants and selective cholesterol absorption inhibitors are indicated. Initiation of a drug treatment with preparations that reduce lipids in the blood can lead to possible side effects. Patient compliance is low due to insufficient effects of medication and adverse reactions, which requires an individualized approach to increase compliance.

**Key words:** dyslipidemia, treatment, genetic markers.