

COMPARISON OF ENDOTHELIN-1 LEVELS IN PATIENTS WITH LOWER LIMB ATHEROSCLEROSIS

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Introduction. Endothelin 1 (ET-1) is a 21 amino-acid peptide product of the EDN1 gene, which is a powerful vasoconstrictor, release in endothelial injury and important in regulation of vascular function [1]. The normal level in maintaining vascular homeostasis varies from 58,72 to 70,87 ng/L. However, it is altered in patients with atherosclerosis (AS) and Diabetes (DM) complications. ET-1 has been studied as a predictor and prognostic marker in coronary artery disease, myocardial infarction, and heart failure [2]. The efficacy of endothelin receptor antagonists in treating pulmonary arterial hypertension has been demonstrated.

Aim of the study. To study the concentration of ET-1 before and after surgery in AS patients, with and without type 2 DM.

Materials and methods. This research was conducted at the Department of vascular and purulent surgery, of Grodno university Clinic. 89 patients were analyzed. Among them 65 were males and 24 were females. All the patients had chronic lower limb ischemia. 3 patients were included into Fontaine scale stage 2b, 3 – stage 3 and 83 – stage 4. The average age group of these patients was 64 ± 10.15 years. The patients were divided into 2 groups. Group 1 consisted of 25 patients with only AS. Group 2 consisted of 64 patients with AS and DM Type 2. The groups were compared by gender, age, and by the stage of chronic arterial insufficiency of the lower limb.

All patients gave informed consent to participate in the study.

Fasting blood samples from the ulnar were collected from all the patients before the planned surgery, and 14 days after the surgery, 3 months and 12 months after surgery. Quantitative determination of ET-1 levels in blood plasma was performed using the enzyme-linked immunosorbent assay. Statistical analysis was performed using MS Excel.

Results and discussion. All the patients in this study had undergone vascular surgery (angioplasty, bypass, stenting, endarterectomy, amputation) In group 1 average concentration of ET-1 levels (ng/l) preoperatively was 65,64. Postoperative levels after 2 weeks, 3 months and 1 year respectively were 63,80, 63,79, 54,22. In group 2 average concentration of ET-1 levels (ng/l) preoperatively was 67,03. Postoperative levels in the same periods as above were 66,60, 68,90, 63,67. The mean level of ET-1 in both groups has slightly reduced within 2 weeks after the vascular

surgery. There is also a significant decrease of ET-1 levels in both groups in a period of 1 year. Though in group 2 an increase of ET-1 in the period of 3 months has been noted.

Conclusion. The revascularization leads to a decrease in the circulating ET-1 levels in both groups after surgery. Hyperglycemia could be the cause for increased ET-1 levels in diabetic patients more than the only atherosclerosis patients.

By literature the DM patients with higher values of ET-1 even after surgery, tend to develop more cardiovascular complications [3].

Therefore, it is important to control ET-1 in plasma levels of post-surgical DM patients to prevent further angiopathies.

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ASSESSMENT OF THRESHOLDS OF TASTE SENSITIVITY TO TABLE SALT IN SRI LANKAN MEDICAL STUDENTS

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Introduction. Increased consumption of table salt is considered to be among the risk factors for cardiovascular diseases. One of the components of the regulation of salt intake is the functional state of the taste analyzer, which can be judged by the threshold of salt sensitivity. It is known that salt sensitivity varies in humans and can change with age and under the influence of many factors, including dietary characteristics.

Aim of the study. The aim of the study was to evaluate the threshold of salt sensitivity in Sri Lankan students of different courses and its relationship with anthropometric characteristics and the state of the cardiovascular system.