Morphological analysis focused on affixation (prefixes like *sub-* and *supra-*), compounding, and the borrowing of Latin/Greek terms. Additionally, the study examined geometric constructs points (e.g., Bregma), lines (e.g., midclavicular line), planes (e.g., *planum sagittale*), axes (e.g., longitudinal axis), and volumes (e.g., *cavitas thoracis*).

Results and discussion.

The analysis revealed that anatomical terms are systematically organized by spatial properties:

- **Locative Terms:** Define positions; for example, *cavitas oris* (oral cavity) indicates a specific region.
- **Metric Terms:** Quantify spatial dimensions, crucial for imaging and surgery.
- **Kinetic Terms:** Describe movements such as *flexion* and *extension*, important in orthopedics and physical therapy.
- **Formative Terms:** Convey shape, aiding in the identification of structures (e.g., *tubercle*).

Morphological patterns show that consistent use of prefixes, suffixes, and compounds (often borrowed from Latin/Greek) ensures clarity. Geometric constructs further enhance these descriptions, providing a framework for visualizing the body in three dimensions.

Conclusion. Spatial properties in anatomical terminology (locative, metric, kinetic, and formative) are fundamental for precise medical communication. The systematic use of Latin and Greek terms, along with geometric constructs, underpins a universal language that supports accurate anatomical descriptions. This enhances medical education, diagnostic imaging, and surgical planning, fostering global consistency in healthcare.

LEVELS OF INFLAMMATORY CYTOKINES IN PATIENTS WITH DIFFERENT PHENOTYPES OF HEART FAILURE

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Introduction. Heart failure (HF) is divided into heart failure with reduced ejection fraction (HFrEF) and heart failure with preserved ejection fraction (HFpEF). The association between HF and inflammation was first recognized in 1990 by Levine et al, who reported elevated levels of TNF in patients with HFrEF. To date, the levels of C-reactive protein (CRP), interleukin 6 (IL-6), and interleukin 1-beta (IL-1) are verified to be increased in plasma of HF patients. The presence of these prototypal pro-inflammatory cytokines and mediators has been linked to worse prognosis. Current clinical trials are investigating on the effectiveness of IL-1 blockade to reduce inflammation, reduction in ventricular remodelling, and improved exercise capacity in patients with HF.

Aim of the study. To evaluate levels of inflammatory cytokines (IL-1 and CRP) in patients with different phenotypes of chronic HF.

Materials and methods. The study included 76 patients with HF of NYHA functional classes I-IV. 46 (61%) patients had a preserved LVEF (≥50%) and 30 (39%) had reduced LVEF (<50%). The inclusion criteria were patients with HF diagnosed based on ESC (2021) guidelines, age >18 years and agreement to participate in the study.

Exclusion criteria from the study were: chronic rheumatic heart disease, acute STEMI, acute myocarditis and endocarditis, prosthetic heart valves, oncological diseases and severe concomitant extracardiac pathology accompanied by systemic inflammation.

All patients underwent clinical, laboratory, and instrumental studies, including determination of CRP and IL-1 levels in venous blood serum using enzyme immunoassay. Statistical analysis was performed using the STATISTICA 12.0 software.

Results and discussion. Patients with HFrEF and HFpEF were comparable in age 59.4 [51.3; 66.8] vs 63.9 [58.5; 70.3] years, p>0.05) and gender (male gender 61% vs 63%). Also, both groups were comparable in prevalence of obesity (37% vs 37%, p>0.05) hypertension (91% vs 80%, p>0.05) and myocardial infarction history (33% vs 40%), p>0.05). However, patients with HFrEF more often suffered from atrial fibrillation, (53% vs 24%, p=0.028) than patients with HFpEF. Also, patients with HFrEF were characterized by higher HF NYHA class (Class 3-4 in 19% of Group 1 and 67% of Group 2, p=0.001).

In biochemical blood test patients didn't show significant intergroup differences in values of renal function tests, total cholesterol, triglycerides, sodium and potassium (p>0.05). However, patients with HFrEF had significantly higher levels of BNP 817 [812.5; 821.5] vs 440.68 [164; 728] ng/mL, p=0.04) and NT-proBNP (4304 [1473; 5702] vs 2640 [32; 2126] pg/mL, p=0.02).

When conducting an enzyme immunoassay in patients of the HFrEF group, the CRP level was 3.95 [3.55; 4.41] mg/L, and in patients of the HFpEF group – 3.52 [2.87; 4.16] mg/L, these differences were statistically significant (p=0.011). However, there were no intergroup differences in IL-1 level (8.20 [2.70; 12.75] vs 7.09 [2.87; 9.16] pg/mL, p=0.66).

Conclusion. Patients with HFrEF had higher values of CRP (p<0.05) in comparison with patients with HFpEF. However, there were no intergroup differences in IL-1 values (p>0.05). Reliability of the obtained results should be further checked on larger samples of patients.