Introduction: Epicardial adipose tissue (EAT), located between the myocardium and visceral layer of pericardium is an emerging risk factor for cardiometabolic diseases.

Methods: The retrospective study consisted of patients hospitalised for STEMI treated with PCI from 2014 to 2016. EAT thickness was measured from the parasternal long-axis view at end-diastole. Cholesterol levels were determined in a blood sample. According to median patients were divided in two groups: thin EAT group (<2.27 mm, $n = 270$) and thick EAT group (≥2.27 mm, $n = 223$). Statistical analysis was performed with SPSS using Mann–Whitney test, *T*-test, logistic regression analysis. Values of cholesterol levels were evaluated by ROC curves. $p < 0.05$ was significant.

Results: Total 492 patients (332 males, 66.62 ± 12.24 year-old) were enrolled. Groups did not differ by age, gender, morbidity of diabetes mellitus and triglyceride levels. Patients had higher BMI (29.41 ± 4.97 vs. 28.13 ± 4.67 kg/m^2, $p = 0.009$), total cholesterol (>4.82 mmol/l: 35.2 vs. 26.4%, $p = 0.024$), low density lipoprotein cholesterol (>2.5 mmol/l: 45.8 vs. 33.3%, $p = 0.004$) and reduced high density lipoprotein cholesterol (HDL-C) levels (≤1 mmol/l: 24.4 vs. 10.4%, $p = 0.009$) in thick EAT group. Logistic regression analysis revealed that higher BMI (OR = 1.532, 95% CI 1.008–2.328, $p = 0.002$) and HDL-C ≤1 mmol/l (OR = 1.777, 95% CI 1.159–2.724, $p = 0.008$) were associated with thicker EAT. Killip class ≥III was more frequent (17.6 vs. 10.3%, $p = 0.02$) in thick than thin EAT group.

Conclusion: Increased EAT thickness was associated with obesity, cardiometabolic risk factors and influenced severity of left ventricular dysfunction.

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PS123

Evaluation of spleen volume: Practical diagnostic role of linear measurements, 2D and 3D coefficients in computed tomography

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Aim: The aim of the study was to find which linear measurements, field and volume coefficients correlate best with the real volume of the spleen and can be further used for determination of splenomegaly.

Introduction: Spleen is involved in a wide spectrum of abnormalities, which might lead to an increase in organ size. Splenic enlargement on CT is diagnosed basing on rather subjective criteria. The product of the length, estimated height and thickness of the spleen ("splenic index", cut-off ≥480) has also been proposed as an indicator for evaluating splenic size on CT.

Methods: Abdominal CT examinations of 153 patients' (77 females, 76 males) were retrospectively analysed in terms of maximal length, thickness, hilum thickness (axial plane), height (longest measurement in coronal plane), 90° height (maximum vertical height at coronal section), estimated height (number of axial scans where spleen was visible multiplied by the thickness of CT scans) (Impax Software) and real spleen volume (Vitrea software). Two-dimensional and three-dimensional coefficients were acquired through proper mathematical formulas. Splenomegaly cut-off: 314.5 ml. Pearson's correlation coefficient was calculated for the relationship between single, field, volume measurements and real volume (Statistica software).

Results: There was a statistically significant correlation between all single, field and volume measurements and real volume ($p < 0.05$). For single measurements, the correlation is the strongest for height ($r = 0.813$, sensitivity 65%, specificity 91.7%, PPV 71.4%, NPV 95.6%). For two-dimensional, it is the coefficient calculated from length and 90° height ($r = 0.918$, 85%, 94.7%, 70.8%, 97.7%). For three-dimensional, it is the coefficient calculated from length, 90° height and hilum thickness ($r = 0.919$, 75%, 96.2%, 75%, 96.2%). Cut-off for splenic index from our calculations was ≥1148.

Conclusion: Coefficient from length, 90° height and hilum thickness correlate best with the real volume of the spleen. Splenic index in our study is far from the perfection for clinical practice.

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PS128

Influence of blood inflammatory parameters to erythropoietin resistance in haemodialysis patients

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Aim: To evaluate the correlation between the inflammatory blood parameters and the resistance to EPO among the hemodialysis patients.

Introduction: Erythropoietin therapy is considered to be the standard treatment of anemia in chronic kidney disease patients, yet some patients do not respond well to this therapy. This is called EPO resistance and could be generally associated with the chronic inflammation.

Methods: A retrospective one single centre study, which analysed medical records of 30 HD patients who had advanced CKD and received EPO treatment in Vilnius University Hospital Santaros Clinics from 2016–2009 to 2016–2011. Data analysed – concentrations of C-reactive protein, neutrophils, lymphocytes, platelets, as well as EPO dose per kilo and hemoglobin concentration (measured at the beginning of the EPO therapy and one month after the treatment).

Results: Patients were grouped into 2 categories: 1 group ($n = 14$) – concentration of hemoglobin increased, 2 group ($n = 16$) – concentration decreased after treatment. In 1 group average concentration of platelets were statistically significantly ($p = 0.039$) higher (230.2 ± 73.70), compared to 2 group (174.1 ± 66.96).

Furthermore, platelets concentration among patients with hemoglobin level of >100 g/l ($n = 17$) after one month of treatment were statistically significantly ($p = 0.012$) higher (231.06 ± 56.41) compared to those patients with hemoglobin level of <100 g/l ($n = 13$) (160.08 ± 78.17) after treatment.

Additionally, patients with hemoglobin levels after one month of treatment 100–125 g/l ($n = 15$) were separated into two groups based on C-reactive protein level: >5 (1 group) and <5 (2 group). Average concentration of erythropoietin was statistically significantly higher in 1 group ($n = 9$) (223.82 ± 69.15 VV/kg) than in 2 group ($n = 6$) (116.68 ± 59.68 VV/kg).

Correlation analysis revealed that among patients with hemoglobin levels of <110 g/l after treatment there is a statistically significant positive correlation (+0.428) between change of hemoglobin levels before and after treatment and erythropoietin dose and statistically significant ($p = 0.023$) negative correlation (−0.481) with lymphocytes concentration in blood.

Conclusion: HD patients with a higher concentration of platelets respond to EPO therapy better than those with a lower concentration. Increased EPO dose results in higher Hgb