correlation was used to identify parameters correlated with APV, AS, AD whereas linear regression analysis was used to assess independent predictors of these parameters.

Results: There were significant differences among four groups with regard to AS (ANOVA p < 0.001), AD (ANOVA p < 0.001), APV (ANOVA p < 0.001) (Fig. 1, 2, 3). APV was significantly correlated with both AS (r = 0.644, p < 0.001) and AD (r = 0.601, p < 0.001).

Conclusions: APV might be an echocardiographic marker of DCM both in the presence and absence of critical coronary artery disease.

Patients who have atrial fibrillation and significant valve disease were excluded from the study. Etiology was divided into two groups as ischemic and non-ischemic. Statistical analysis was performed using SPSS Version 15.

Results: At ischemic group there were significantly correlation between both EF-EPSS (r = -0.788) and EF-LVDD/EPSS (r = 0.768) (P < 0.01). Also at non-ischemic group there were significantly correlation between both EF-EPSS (r = -0.722) and EF-LVDD/EPSS (r = 0.811) (P < 0.01). But at ischemic group EPSS and at non-ischemic group LVDD/EPSS was better to predict EF.

Conclusions: EPSS is a simple measurement that reflects LV function. LVDD/EPSS ratio was easy to calculate and especially at non-ischemic etiology it was powerful indirect indicator to reflect EF. We must research this new indicator at different etiologies and requires further investigation in studies with higher patient population.

PP-196
Assessment of Left Atrial Appendage Function by 2-Dimensional Speckle-Tracking Imaging in Transesophageal Echocardiography
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Aim: The aim of this study was to investigate whether strain and strain rate (SR) values measured by 2-dimensional speckle tracking echocardiography are useful for the assessment of left atrial appendage (LAA) function.

Methods: Transesophageal echocardiography was performed in consecutive patients with sinus rhythm (n = 82) and atrial fibrillation (n = 43). After determination of LAA function with conventional methods, LAA was divided into 3 segments (medial, apical and lateral) and LAA longitudinal function was assessed by speckle tracking echocardiography. LAA late emptying velocity (LAAEV) was accepted as the gold standard for LAA function and normal LAA function was defined as LAAEV < 50 cm/s.

Results: Highest strain and SR values were measured in medial LAA wall in both sinus rhythm and AF patients (medial strain %19.2 ± 6.8 vs. %17.4 ± 3.4 and SR %2.5 ± 1.0 s-1 vs. 1.1 ± 0.6 s-1, respectively). Segmental and global strain and SR values showed significantly good correlations with LAAEV and LAA emptying fraction. In ROC analysis, best cut-off values for global strain and SR to discriminate LAA function between sinus rhythm and AF, and also for normal and reduced LAA function were %11 and 1.4 s-1, respectively.

Strain and SR were significantly lower in patients with spontaneous echocardiographic contrast (SEC) when compared to those without (mean global strain: sinus rhythm %17.8 vs. %7.9, p < 0.001 and AF %7.5 vs. %5.9, p = 0.05, respectively). In logistic regression analysis, global strain was the best determinant of SEC (p < 0.001).

In ROC analysis, the cut-off global strain and SR values for the presence of SEC were similar, ≤ %11.3 and ≤ 1.7 s-1, respectively.

Conclusion: Speckle tracking echocardiography is more specific and an unbiased diagnostic test for evaluating LAA functions in comparison with the mono-faceted procedures.

PP-197
Can Atrial to Total Tricuspid Annular Plane Diastolic Excursion Ratio be a Preload Independent Predictor of Right Ventricular Diastolic Function?
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Purpose: Ratio of the amplitude of tricuspid annular plane excursion during atrial systole to the total tricuspid annular plane motion (atrial/total TAPDE) is suggested to be a measure of right ventricular (RV) diastolic functions. This study investigates the effect of postural preload changes on atrial tricuspid excursion and determine its correlation with standard pulse wave (PW) Doppler or Pulsed wave tissue Doppler imaging (PWTDI) derived diastolic parameters.

Methods: Tricuspid inflow PW Doppler, and lateral annulus PWTDI parameters from 26 healthy volunteers were recorded. M-mode cursor was placed in lateral tricuspid annulus and annular plane motion away from the apex during RV relaxation and the fraction occurring during atrial systole (atrial TAPDE) were recorded (Figure). Atrial/Total TAPDE was calculated. Same recordings were repeated after 45 degrees passive leg raising (PLR) and at upright position.

Results: Baseline total tricuspid annular plane motion values were 25.9 ± 3.3 mm, atrial TAPDE was 10.8 ± 1.54 mm and atrial/total TAPDE ratio was 42.1 ± 7%. Atrial TAPDE values after PLR (11.43 ± 2.00 mm, p = 0.14) were similar to baseline but values in upright posture were significantly lower (9.07 ± 1.74 mm, p < 0.001). However atrial/total TAPDE ratio was not changed in either posture (PLR 46.1±11% p = 0.13, upright 42.6±4.4%, p = 0.54). Baseline atrial TAPDE or atrial/total TAPDE ratio was not correlated with tricuspid inflow early (E), late (A) diastolic velocities and deceleration time as well as PWTDI derived E’ and A’ velocities or E/E’ ratio.

Conclusion: Atrial/Total TAPDE is an easy measurement that is not affected by preload changes. However it was not correlated with other diastolic parameters. Further research is necessary to validate the value of this measurement as a preload independent measure of RV diastolic functions.

PP-195
Due to Etiology which can Predict Ejection Fraction Better, EPSS or LVDD/EPSS?
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Aim: Echocardiographic mitral valve E point-septal separation (EPSS) has been found to be a useful hemodynamic index. The EPSS can generate a rapid quantitative idea on left ventricular (LV) function, especially when acquisition of multiple breath-hold short-axis images is difficult. In this study we aimed to compare new index (LVDD/EPSS) with EPSS to predict LV function due to anetiology.

Methods: Total 79 patients were enrolled to the study who have systolic dysfunction.

The EPSS was measured in millimeters (mm) as the minimal separation distance between the mitral valve anterior leaflet and the ventricular posterior septum in M-mode echocardiography. Also left ventricular diastolic diameter (LVDD) was measured in M-mode. We used modified Simpson's rule for calculating EF. We used correlation analysis to analyze the relation between the LVEF and EPSS and LVDD/EPSS.