Table 1. Corrected values of the QTp, QTe and Tp±Te intervals in the HT/NC cardiomyopathy patients.

	QTp (ms)	QTe (ms)	Tp-Te (ms)
Lead I	274±29*	363±32	90±14*
Lead II	274±29*	364±30	95±33
Lead III	279±30*	367±31	88±13
aVR	274±29	366±31	91±13
aVL	277±31*	367±34	92±12
aVF	276±28*	370±32*	94±12
Lead V1	94±12	368±32	92±13
Lead V2	281±29†	375±34	95±14†
Lead V3	281±30†	374±31	93±13†
Lead V4	280±30*	375±29	95±12†
Lead V5	279±29*	373±30	95±12†
Lead V6	279±35*	373±33	92±13†

*P<0.05 and †P<0.001

Table 2. Corrected values of the QTp, QTe and Tp±Te intervals in the controls.

	QTp (ms)	QTe (ms)	Tp-Te (ms)
Lead I	251±24	352±24	101±11
Lead II	257±23	358±25	99±12
Lead III	254±26	348±31	93±16
aVR	261±25	356±31	96±18
aVL	252±27	349±39	95±16
aVF	260±25	350±36	91±18
Lead V1	268±30	368±34	99±16
Lead V2	249±27	358±35	109±14
Lead V3	251±26	362±33	111±12
Lead V4	254±27	367±34	113±11
Lead V5	261±30	367±30	111±13
Lead V6	256±22	364±29	109±17

PP-154

Effects of Coronary Collateral Circulation on Tp-e interval, Tp-e/QT and Tp-e/QTc Ratios in Coronary Artery Disease Patients

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Background: Coronary collateral circulation (CCC) identifies the severity of ischemic myocardial injury. Tp-e/QT ratio and Tp-e/QTc ratio are known as indicators of ventricular arrhythmogenesis. Aim of our study was to assess the effect of CCC on ventricular arrhythmogenesis in coronary artery disease patients using these new markers.
Methods: Fifty five patients who have at least one occluded major coronary artery were included in our study. Study population were divided into two groups according to the Rentrop collateral scoring system with poor (Rentrop score 0-1, n=26) and good (score 2-3, n=29) CCC. We collected fasting blood samples before the coronary angiography.
Results: QT dispersion (QTd) (27.8±4.5, 25.6±3.9 P=0.011), corrected QTd (33.3±7.4, 30.8±5.8, P=0.017), cTp-e interval (84.5±7.5, 72.0 ± 5.7, P<0.001), Tp-e/QT (0.26±0.03, 0.18±0.03, P<0.001) and Tp-e/QTc ratios (0.21±0.02, 0.15±0.03, P<0.001) were significantly higher in good CCC patients compared to poor group. We found significant positive correlations between the collateral score with Tp-e/QT and Tp-e/QTc ratios (r=0.444, P<0.001, r=0.418, P<0.001, respectively).
Conclusion: We found higher cTp-e interval, Tp-e/QT and Tp-e/QTc ratios in patients with good CCC than in poor CCC. We consider that cTp-e interval, Tp-e/QT and Tp-e/QTc ratios are likely to be useful indices of ventricular arrhythmias in coronary artery disease patients, especially who have good CCC.

PP-155

Evaluation of Heart Rate Turbulence Parameters According to Localization of Infarction in Patients with ST-elevation MI who Underwent Primary Percutaneous Coronary Intervention

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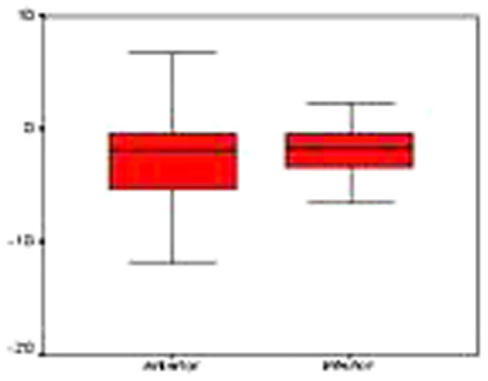
Objective: We aimed to evaluate heart rate turbulence (HRT) parameters according to localization of myocardial infarction (MI) in patients with ST-elevation MI who underwent primary percutaneous coronary intervention and determine if these parameters should be used for prognosis and if they effect in-hospital mortality.
Methods: Our study included a total of 48 patients who underwent primary percutaneous coronary intervention (PTCA) after acute ST-elevation MI and were divided in two groups as anterior and inferior due to localization of infarct. The exclusion criterias were; history of coronary artery bypass grafting, previous coronary intervention, trombolytic therapy, atrial fibrillation in electrocardiogram (ECG), presentation with only lateral or posterior infarction. 24 hours ECG holter monitoring was executed for all patients and records were analyzed with holter program. TO (turbulence onset) and TS (turbulence slope) were measured by Schmidt criterias. For TO >0% and TS< 2.5 ms / RR values were considered pathological. Data analysis was performed using SPSS for Windows 11.5 package program. p<0, 05 was considered to be statistically significant.
Results: According to the localization of infarction in MI groups in terms of age and gender differences were not statistically significant (p=0, 460 and p=1, 000) (Table 1). Mean left ventricular ejection fraction (LVEF) of anterior MI group was significantly lower than those of inferior MI group (p<0, 001). TO and TS levels didn't differ statistically significant between groups (p=0, 483 and p=0, 733) (Table 2) (Figure 1-2). 9 patients (18.7%) had abnormal TO, whereas the values of TS were normal in all patients. TS levels were significantly lower in DM group (p=0, 023) although TO showed a statistically nonsignificant change (p=0, 273) (Table 3). There was a significant correlation between age and TS, TS levels were decreasing with age (r=-0, 335 and p=0, 020).
Conclusion: There has not been a study investigating the parameters of HRT according to localization of MI so far. HRT values were similar between the groups and we could not find any connection between HRT parameters and LVEF. A statistically significant negative correlation between TS and age was found in our study too. According to our results, HRT parameters which can be used as a predictor of mortality after myocardial infarction do not appear to be a sensitive method in determining the risk at early period when they are used for the groups divided due to localization. In our study, mean LVEF levels of patients included in the study were high and the deterioration rate of HRT parameters was low due to be treeated with primary percutaneous intervention and this may have played a role in detection of these results. Prospective studies on larger patient groups are needed to demonstrate the relationship between HRT and acute myocardial infarction and effects of these parameters at short and long-term prognosis.



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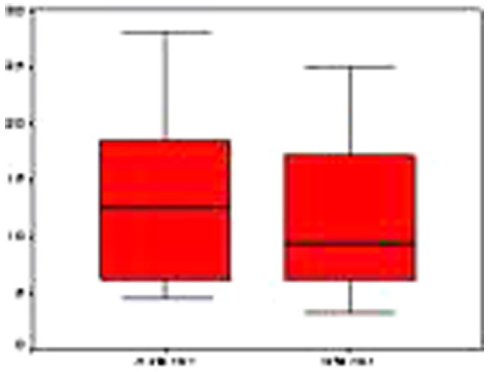

Table 1. Demographic characteristics of patients according to the localization of infarction

	Anterior MI (n:24)	Inferior MI (n:24)	p-value
Age	52, 8±13, 2 (27-74)	55, 6±13, 1 (28-78)	0, 460
Gender			1, 000
Male	21 (%87, 5)	20 (%83, 3)	
Female	3 (%12, 5)	4 (%16, 7)	
HT	5 (%20, 8)	5 (%20, 8)	1, 000
DM	7 (%29, 2)	5 (%20, 8)	0, 505
Smoking	16 (%66, 7)	13 (%54, 2)	0, 376

(HT: Hypertension, DM: Diabetes mellitus)

Table 2. Turbulence onset and turbulence slope values in groups

	Anterior MI (n:24)	Inferior MI (n:24)	p-value
TO	-1, 9 (-16, 0 – 6, 8)	-1, 7 (-10, 0 – 2, 3)	0, 483
TS	12, 6 (4, 6-90, 8)	9, 4 (3, 2-86, 0)	0, 733

(TO: Turbulence onset, TS: Turbulence slope)

Table 3. Turbulence onset and slope levels due to history of HT and DM

	TO	TS
HT		
(+)	-1, 7 (-11, 8 – 1, 6)	9, 4 (4, 6-70, 2)
(-)	-1, 8 (-16, 0 – 6, 8)	13, 3 (3, 2-90, 8)
p value	0, 774	0, 415
DM		
(+)	-0, 6 (-11, 8 – 1, 9)	7, 0 (4, 6-17, 2)
(-)	-2, 0 (-16, 0 – 6, 8)	14, 0 (3, 2-90, 8)
p value	0, 273	0, 023

HT: Hypertension, DM: Diabetes Mellitus, TO: Turbulence onset, TS: Turbulence slope

PP-156

Relationship Between Platelet Indices and International Normalized Ratio In Patients With Non-Valvular Atrial Fibrillation

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Background: Atrial fibrillation (AF) is the most common sustained arrhythmia and associated with adverse outcomes and increased risk for thromboembolic events. Warfarin is still the most extensively prescribed oral anticoagulant in AF to prevent ischemic complications. It has been shown that larger platelets are more active and protrombotic than smaller ones.. Platelet indices including mean platelet volume (MPV), platelet distribution width (PDW), plateletcrit (PCT) are routinely measured in complete blood cell counts (CBCs) without additional costs and investigated in many conditions. We aimed to determine the differences at platelet indices with warfarin usage layered by International Normalized Ratio (INR).

Methods: 250 patients with permanent non-valvular AF (mean age 70.2 ± 9.1; 153 female) were divided into 2 groups. Group 1 included 125 patients whose INR is between 2.0 and 3.0 (called as "effective") and Group 2 included 125 patients whose INR is <2.0 (called as "inefective"). Also 123 age- and sex-matched healthy individuals enrolled as control group (Group 3). After physical and echocardiographic examination, complete blood counts and INR were studied.

Results: There was no statistically significant difference in age, sex, comorbidities and medications, also hemoglobin, white blood cell and platelet counts among the groups. The CHA2DS2-VASc scores were similar between Group 1 and Group 2. Mean MPV, median PCT and PDW were significantly higher in Group 2 than Group 1 and Group 3 and similar between Group 1 and 3. MPV was correlated with PDW (r=0.454, p<0.001) and PCT (r=0.208, p=0.001) also inversely correlated with INR (r=-0.455, p<0.001) and platelet count (r=-0.307, p<0.001). In ROC curve analysis the area under curve values (AUC) were 0.778 (cut-off value 7.76; p<0.001) for MPV, 0.662 (cut-off value 17.7; p<0.001) for PDW and 0.657 (cut-off value 0.192; p<0.001) for PCT. In multivariate logistic regression analysis by using these cut-off values MPV, PDW and PCT were found to be independent predictors of risk of INR ineffectiveness (OR: 5.194; p<0.001; 95% CI 2.829-9.535 for MPV, OR: 2.137; p=0.013; 95% CI 1.171-3.898 for PDW and OR: 2.854; p<0.001; 95% CI 1.586-5.135 for PCT).

Conclusion: The results of this study showed that MPV, PDW and PCT are increased in patients with non-valvular AF without effective warfarin treatment. Warfarin usage adjusted by INR is associated with lower values of these platelet indices, even lower as the values of healthy subjects. MPV, PDW and PCT are independent predictors of INR ineffectiveness and seem to be useful parameters for monitoring the effectiveness of warfarin treatment.

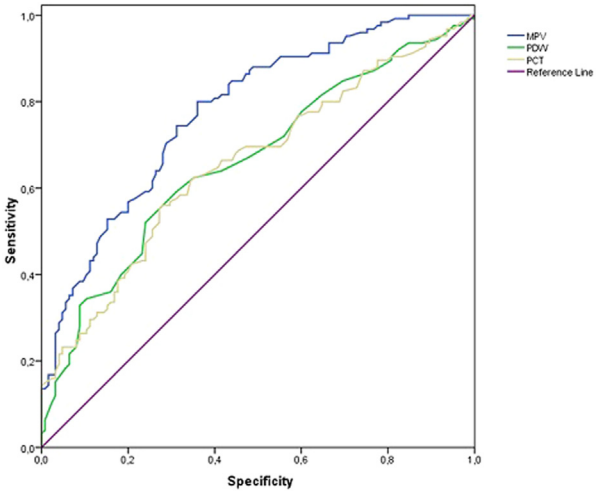

Table 1. Demographic, clinical and echocardiographic characteristics of the study population

	Group 1	Group 2	Group 3	p value
Age (mean ± SD), years	70.4±8.6	70.0±9.7	68.9±9.1	0.446
Gender Male,(%) Female,(%)	52 (41.6) 73 (58.4)	45 (36.0) 80 (64.0)	49 (39.8) 74 (60.2)	0.650
Hypertension, (%)	88 (70.4)	79 (63.2)	83 (67.5)	0.476
Diabetes mellitus, (%)	6 (4.8)	8 (6.4)	9 (7.3)	0.706
Hyperlipidemia, (%)	48 (38.4)	61 (48.8)	57 (46.3)	0.323
Smoking, (%)	16 (12.8)	12 (9.6)	18 (14.6)	0.413
Beta blocker, (%)	68 (54.4)	72 (57.6)	80 (65.0)	0.218
ACEi or ARB, (%)	79 (63.2)	70 (56.0)	68 (55.3)	0.375
CCB, (%)	43 (34.4)	40 (32.0)	32 (26.0)	0.339
Diuretic, (%)	40 (32.0)	33 (26.4)	27 (22.0)	0.201
CHA2DS2-VASc score (mean±SD)	2.77±1.1	2.79±1.1	N/A	0.8721
LVEF, %	56.1±2.7	54.2±3.1	57.4±2.8	0.564
Left atrium, mm	44.6±3.5	45.2±3.8	35.2±2.8	<0.0012*

ACEi = Angiotensin-converting enzyme inhibitor, ARB= Angiotensin II receptor blocker, CCB= calcium channel blocker, LVEF= left ventricule ejection fraction, SD= standart deviation
*difference lies between Group 3 and Group 1/2