MYOCARDIAL INVOLVEMENT IN PATIENTS WITH BEHÇET'S DISEASE

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Objective: To evaluate myocardial involvement noninvasively in patients with Behçet's disease by measuring QT dispersion and HRV.

Methods: The study group included 74 BD pts (53 males/21 females) with disease duration of 9,0 (5,0;15,0)/9,0 (7;20) years, and the control group - 32/15 age-matched healthy m/f. The following HRV parameters from 24h ECG ambulatory recording were assessed: MeanNN and time-domain variables, adjusted by MeanNN (SDNNn%, SDNNin%, RMSSDn%). Additionally, all traditional cardiovascular risk factors such as systolic blood pressure (SPB), smoking status, BMI values, dyslipidemia profile, ultrasonographic values of carotid intima-media thickness (IMT), and levels high sensitive CRP (hsCRP) as a marker of inflammation were evaluated.

Results: In BD patients HRV values (RMSSDn%) were significantly lower compared to healthy controls (table 1).

Table 1. HRV parameters in BD patients and control group

Parameters	Males		Females	
	BD (n=53)	Control (n=32)	BD (n=21)	Control (n=15)
Age, years	30 (24; 36)	30 (26; 35)	32 (26; 37)	28 (24; 31)
MeanNN, ms	810 (732; 849)	782 (732; 835)	776 (708; 830)	764 (694; 832)
SDNN n (%)	16,9 (13,6; 19,4)	17,2 (16,3; 21,1)	13,1 (11,3; 5,3)	12,2 (10,7; 14,6)
SDNNi n (%)	6,8 (5,1; 8,1)	6,8 (5,0; 8,3)	7,1 (6,1; 7,7)	5,2 (4,9; 5,7)
RMSSD n (%)	2,1 (1,5; 2,3)**	4,1 (2,7; 5,2)**	1,7 (1,4; 3,7)*	2,8 (2,2; 3,9)*
pNN50	4,1(3,4;7,2) **	13,5 (6,7;21,1) **	4,0 (3,7;11,4)	6,0 (3,8;16,2)

Fig 1. SDNNin% significant negative correlation in BD

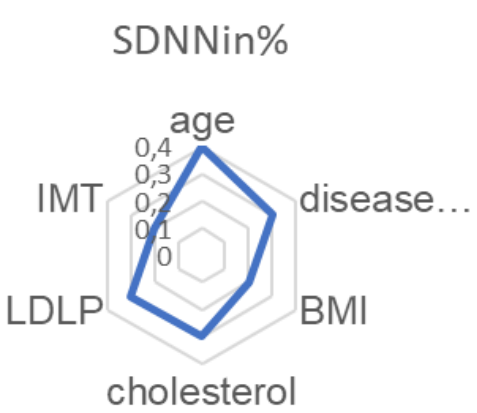
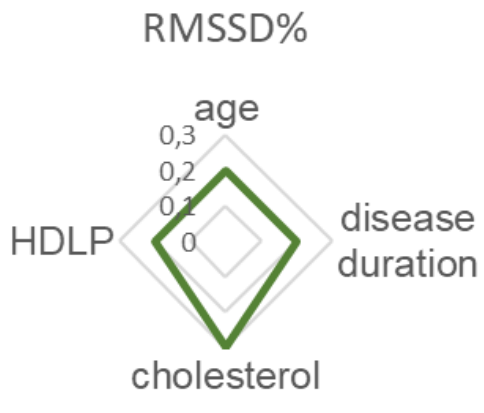


Fig 2. RMSSD% significant negative correlation in BD



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There was a significant negative correlation in BD patients between HRV (SDNNin%) and age, disease duration, BMI, cholesterol levels, LDLP and increased IMT, and also between HRV (RMSSD%) and age, disease duration, cholesterol levels, HDLP; a positive correlation was established between HRV (SNNN%) and smoking (r= 0,2; p=0,04). The control group showed positive correlation between HRV (SNNN%) and increased IMT (r= 0,4; p=0,01). HRV wasn't a significant correlation in patients with clinical manifestation, severity and activity of BD.

Conclusion: HRV reduction reflects impaired sympathetic -parasympathetic regulation in BD pts, associated with pts' age, disease duration and presence of traditional cardiovascular risk factors: BMI, increased cholesterol levels, LDLP, and such asymptomatic manifestation of atherosclerosis as increased IMT.

Conflict of interest: the Authors declare that there is no conflict of interest