Introduction

Patients with acute myocardial infarction frequently have both left ventricular systolic and diastolic dysfunction, although both isolated systolic and diastolic left ventricular dysfunction can be identified **(Giannuzzi et al., 1994).**

Mitral annulus systolic and diastolic velocities determined by pulsed wave tissue Doppler are relatively preload-independent and reliable variables in evaluating systolic and diastolic left ventricular function (**Bolognesi et al., 2001)**.

P wave dispersion (PWD) is related to the nonhomogenous and interrupted conduction of sinus impulses intra- and interatrially. Currently, PD is described as a noninvasive indicator of atrial fibrillation risk, which can be calculated easily on a 12-lead surface ECG **,** by measuring minimum and maximum P wave duration values on the surface electrocardiogram. **(Dilaveris et al., 2000)**

Diastolic function usually declines before systolic function, and this precedes clinical signs, therefore, diagnosis of diastolic dysfunction is very important for early diagnosis, follow up and treatment **(Mandinow et al., 2000).**

Aim of the work

To study the relationship between P wave dispersion and left ventricular systolic and diastolic function in patients with acute anterior myocardial infarction.