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论著

QRS波宽度正常的扩张型心肌病左室收缩同步性研究

易娜， 张赛丹

中南大学湘雅医院心血管内科， 长沙 410008

摘要：

目的：运用脉冲多普勒组织成像（PW-DTI）技术评价QRS波宽度正常的扩张型心肌病（DCM）慢性心力衰竭患者左室收缩同步性的分布特征，及其与左室收缩功能、心室重构、功能性二尖瓣返流（FMR）的关系。方法：应用PW-DTI技术测量47例DCM慢性心力衰竭患者（DCM组）和40例正常人（正常对照组）左室壁12个节段的收缩达峰间期（Ts）,计算Ts的极差(Ts-maxD)和标准差(Ts-SD)。结果：DCM组Ts-SD和Ts-maxD显著大于正常对照组（P＜0.01）；DCM组中Ts-maxD大于100 ms或Ts-SD大于34.4 ms患者有14人，即不同步率为29.8% (14/47)，收缩延迟的部位以左室下壁多见；DCM慢性心力衰竭患者Ts-SD，Ts-maxD与左室射血分数（LVEF）呈负相关(P＜0.01)，与左室舒张末容积（LVEDV），左室收缩末容积（LVESV），功能性二尖瓣返流（FMR），纽约心脏协会（NYHA）心功能分级呈正相关(P＜0.01)。结论：部分QRS波宽度正常的DCM慢性心力衰竭患者左室存在机械收缩不同步；左室机械收缩不同步加重心功能损害，与左室重构亦有密切关系，并可能是DCM患者FMR的原因之一。

关键词： 扩张型心肌病 慢性心力衰竭 左室收缩不同步 脉冲多普勒组织成像

Left ventricular systolic synchrony in dilated cardiomyopathy patients with normal QRS wave

YI Na， ZHANG Saidan

Department of Cardiovasology, Xiangya Hospital, Central South University, Changsha 410008， China

Abstract:

ObjectiveTo evaluate the distribution characteristics of left ventricular systolic dyssynchrony (LV-SD) in dilated cardiomyopathy (DCM) patients with chronic heart failure (CHF) and normal QRS wave width, by pulsed-wave Doppler tissue imaging (PW-DTI), and study its relation with left ventricular systolic function, ventricular remodeling, and functional mitral regurgitation (FMR). MethodsThe time to peak systolic velocity (Ts) in 12 left ventricular segments was evaluated by PW-DTI, from which the standard deviation (SD) of Ts in the 12 segments (Ts-SD) and maximum Ts difference (Ts-maxD) were calculated. ResultsTs-SD and Ts-maxD in the 12 LV segments of the DCM patients with CHF were significantly higher than those of the healthy controls (P＜0.01). In DCM patients with CHF and normal QRS wave width, the incidence of LV-SD was 29.8% (14/47) and the inferior wall was the most frequent distribution site of contraction delay. Linear regression analysis revealed a negative correlation between Ts-SD, Ts-maxD, and left ventricular ejection fraction (LVEF) (P＜0.01), but a positive correlation between Ts-SD, Ts-maxD and left ventricular end-diastolic volume (LVEDV), lefe ventricular end-systolic volume (LVESV), New York Heart Association (NYHA) cardiac function, FMR (P＜0.01) in DCM patients with CHF. ConclusionLV-SD exists in DCM patients with normal QRS width. LV-SD aggravates the LV systolic function damage, which is closely associated with left ventricular remodeling. LV-SD may contribute to the FMR in DCM patients.

Keywords: dilated cardiomyopathy;chronic heart failure;left ventricular systolic dyssynchrony;pulsed-wave Doppler tissue imaging

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通讯作者:

作者简介:

作者Email: zhangsaidanli@126.com

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