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糖尿病性心肌病与高血压性心脏病左心功能的对比观察

Contrast observation of left ventricular function between diabetic cardiomyopathy and hypertensive cardiopathy

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中文摘要:

目的 利用Tei指数及组织多普勒(DTI)评价糖尿病性心肌病与高血压性心脏病的左心功能差异。方法 受检者分为糖尿病性心肌病组、高血压性心脏病组和正常对照组,均接受常规的超声心动图检测和左心室Tei指数计算,并运用DTI测量二尖瓣瓣环的Sa、ET、Ea/Aa。结果 糖尿病性心肌病组和高血压性心脏病组的Tei指数明显高于正常对照组,且糖尿病性心肌病组的Tei指数高于高血压性心脏病组;糖尿病性心肌病组的收缩期左心室最高射血速度低于高血压性心脏病组及正常对照组,室间隔、下壁瓣环收缩期峰值速度(Sa)均低于高血压性心脏病组及正常对照组,室间隔、下壁瓣环的局部射血时间(ET)均长于高血压性心脏病组及正常对照组,差异有统计学意义(P均<0.05);糖尿病性心肌病组和高血压性心脏病组的Ea/Aa均明显小于正常对照组,但糖尿病性心肌病组与高血压性心脏病组的差异无统计学意义($P>0.05$)。结论 糖尿病性心肌病和高血压性心脏病均导致心肌的舒张功能减退,但糖尿病性心肌病所引起的心肌收缩功能下降较高血压性心脏病更为显著,利用Tei指数及DTI检测左心功能即能将二者鉴别。

英文摘要:

Objective To explore the differences of left ventricular function between diabetic cardiomyopathy and hypertensive cardiopathy with Tei index and Doppler tissue imaging (DTI). **Methods** The subjects were divided into three groups: diabetic cardiomyopathy group, hypertensive cardiopathy group and normal control group. A routine ultrasoundcardiogram examination was made and the Tei index of left ventricular was measured in the three groups. Sa, ejection time (ET) and Ea/Aa at the mitral annulus of several walls were all measured with DTI. **Results** The Tei indix measured in the diabetic cardiomyopathy group and the hypertensive cardiopathy group was much higher than that measured in the normal control group. Tei indix measured in the diabetic cardiomyopathy group was higher than that measured in the hypertensive cardiopathy group, while the left ventricular peak systolic velocity measured in the diabetic cardiomyopathy group was lower than those measured in the hypertensive cardiopathy group and the control group. Sa at mitral annulus of interventricular septum and inferior wall of the diabetic cardiomyopathy group were lower than that of the hypertensive cardiopathy group and the control group, and the local ET of the two segments was longer in diabetic cardiomyopathy group than in hypertensive cardiopathy group and the control group (all $P<0.05$). Ea/Aa measured in the diabetic cardiomyopathy group and the hypertensive cardiopathy group was much less than that measured in the normal control group. There was no remarkable difference of Ea/Aa between the diabetic cardiomyopathy group and the hypertensive cardiopathy group ($P>0.05$). **Conclusion** Both diabetic cardiomyopathy and hypertensive cardiopathy can result in the falloff of the left ventricular diastolic function. However, the falloff of the left ventricular systolic function caused by diabetic cardiomyopathy is more obvious than that caused by hypertensive cardiopathy. Therefore, a differential diagnosis between diabetic cardiomyopathy and hypertensive cardiopathy can be achieved by the use of Tei index and DTI.

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