

论著

QT离散度在急性肺栓塞中的临床意义

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摘要:

目的: 探讨急性肺栓塞患者的QT离散度变化及临床意义。方法: 收集2011年5月至2012年4月中南大学湘雅医院急性肺栓塞患者42例,根据入院时情况分为高危组(16例)和非高危组(26例),以年龄与性别匹配的同时期健康体检者30例为正常对照组。肺栓塞患者入院24 h内及治疗后分别行同步十二导联心电图检查,手工测量QT间期,并计算出QT离散度(QT dispersion,QTd)及心率校正的QT离散度(heart rate-corrected QT dispersion,QTcd)。短期随访患者住院期间生存情况,根据生存情况分为生存组(31例)及死亡组(11例)。结果: QTd及QTcd在高危组[(70.2±34.0), (88.1±43.3) ms]及非高危组[(49.3±21.8), (59.1±26.2) ms]均显著大于正常对照组[(33.2±12.4), (36.7±14.2) ms]($P<0.05$);高危组又显著大于非高危组($P<0.05$)。前后两次心电图间隔为(5.6±2.5) d,治疗后生存组QTd及QTcd [(41.0±16.4), (47.4±18.0) ms]较入院时[(54.0±33.0), (67.2±40.5) ms]显著减小($P<0.05$),但仍大于正常组($P<0.05$),死亡组治疗前后QTd及QTcd差异无统计学意义($P>0.05$)。多元logistic回归分析表明:入院时高危、存在右室功能障碍、治疗后QTcd仍大于正常范围是住院期间死亡的主要影响因素。结论: 急性肺栓塞患者QTd及QTcd增大;合并右室功能障碍、入院时危险度高及治疗后QTcd大于正常范围者住院期间短期预后不良。

关键词: 急性肺栓塞 QT离散度 动态变化 预后

QT dispersion in acute pulmonary embolism

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Abstract:

Objective: To explore the alteration and the clinical significance of QT dispersion in acute pulmonary embolism (PE).

Methods: From May 2011 to April 2012, 42 hospitalized PE patients in Xiangya Hospital of Central South University were enrolled, and divided into a high-risk group and a non-high-risk group according to the clinic state on admission. Another 30 healthy subjects with matched age and genders were enrolled as a normal control group. QT interval was measured manually in 12-lead conventional electrocardiogram within 24 hours on admission and after the treatment. QT dispersion (QTd) and heart rate-corrected QT dispersion (QTcd) were also calculated. All patients were followed up during hospitalization, and were divided to a death group and a survival group.

Results: QTd and QTcd in the high-risk group [(70.2±34.0), (88.1±43.3) ms] and the non-high-risk group [(49.3±21.8), (59.1±26.2) ms] were significantly higher than those in the normal control group [(33.2±12.4), (36.7±14.2) ms] ($P<0.05$), while QTd and QTcd in the high-risk group were significantly higher than those in the non-high-risk group ($P<0.05$). The interval of electrocardiogram was (5.6±2.5) days between 24 hours on admission and after the treatment (ECG). QTd and QTcd were reduced significantly after the treatment in the survival group [(41.0±16.4), (47.4±18.0)ms] compared with those on admission [(54.0±33.0), (67.2±40.5)ms] ($P<0.05$), but the QTd and QTcd after the treatment were also significantly higher than those in the normal control group ($P<0.05$). There was no significant difference in the QTd and QTcd between 24 hours on admission and after the treatment in the death group ($P>0.05$). Logistic regression showed that high-risk of PE, right ventricular dysfunction and high QTcd after the treatment were the main risk factors of hospital death.

Conclusion: QTd and QTcd are increased in PE. PE patients with right ventricular dysfunction, high-risk of PE, and high QTcd after the treatment suggest weak prognosis.

Keywords: acute pulmonary embolism QT dispersion dynamic variation prognosis

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