預算單一劑量adenosine成功治療房室結迴旋頻脈的因素

Predictors of successful one-shot cardioversion of atrioventricular nodal reentrant tachycardia by adenosine

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摘要

爲了探討可能影響單一劑量 adenosine 治療心室上心搏過速的因素，我們前瞻性的分析 84 位穩定的房室結迴旋心搏過速病患臨床資料。每位病患都接受美國心臟學會高級心臟救命術的標準治療，直到心搏過速停止爲止。這些病患依照第一劑 6mg adenosine 可以成功使心室上心搏過速停止與否，分爲 A 組（n=30，單一劑量成功治療）及 B 組（n=54，單一劑量治療失敗）。兩組在年齡、性別及潛在性疾病上，無明顯差異。B 組病患在心搏過速時脈搏數比 A 組爲高 (176±18 bmp vs. 166±14 bmp, p<0.05)。恢復正常心跳後，B 組病患的脈搏數比 A 組高 (100±14 bmp vs. 89±18 bmp, p<0.05)。A 組病患同時使用乙型交感神經阻斷劑 (20% vs. 2%) 及精神輕緩劑 (15% vs. 2%) 的比例較高 (p<0.001)。在所有病患中，8 位使用乙型交感神阻斷劑，6 位使用精神輕緩劑，其單一劑量成功率較其他病患爲高 (88% vs. 34%, p<0.0l 及 83% vs. 36%, p<0.0l)。此外，經由中央靜脈注射 adenosine 的病患單一劑量成功率爲 100%，比經由前臂靜脈的 38%及手背靜脈的 13%，顯著爲高。總之使用 adenosine 治療心室上心搏過速的單一劑量成功率，決定於注射部位與心臟的距離，以及任何可影響病患交感神經興奮性的因素。

Abstract

To define possible factors affecting the single bolus success rate of adenosine, we analyzed 84 patients with electrophysiologic study-proven stable atrioventricular (AV) nodal reentrant tachycardia. Each patient was treated according to the guidelines of American Heart Association/Advanced Cardiac Life Support until termination of the tachydysrhythmia. The patients were subdivided into group A (n=30), successful cardioversion following a single 6mg dose of adenosine and group B (n=54), failure to convert after a single dose. The two groups were comparable in age, sex and underlying diseases. In group B, the tachycardia rate was faster both pre (176±18 bpm vs. 166±14

bpm, P<0.01) and immediately post cardioversion (100±14 bpm vs. 89±8 bpm, p<0.0l). The patients in group A were more likely to report the concomitant use of beta-adrenergic antagonists (20% vs. 2%) and sedatives (15% vs. 2%) (p<0.001). In those subjects already taking beta-adrenergic antagonists (n=8) and sedatives (n=7), the single-shot success rates were significantly higher than those without (88% vs. 34%, p<0.0l; and 83% vs. 36%, p<0.0l). Injection sites also appeared very important. Those administered adenosine via a central vein had 100% single bolus success, with only 38% success via the antecubital veins and 13% for the dorsum of the hand, (p<0.00l) In summary, the success of adenosine bolus cardioversion of AV nodal reentrant tachycardia appears to depend upon distance from the injection site to the heart and the presence of medications that may attenuate the patient’ s sympathetic tone..