

Adenosine administration in supraventricular tachycardia

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Answer

The ECG during symptoms was strongly suggestive of typical atrial flutter. After adenosine administration, the heart rate slowed for a few seconds because of 3:1 atrioventricular (AV) conduction, but it then changed to 1:1 conduction response (Fig. 1). This was associated with haemodynamic instability, which required electrocardioversion. Although adenosine administration is usually innocuous, its potential harmful effects should not be underestimated. A careful analysis of the initial ECG could have foreseen this atypical response, as 1:1 AV conduction beats were observed [1]. These beats are indicators of a high sympathetic tone, which increased after adenosine administration, with the outcome described above [2]. This case shows the unusual but dangerous proarrhythmic effect of adenosine in patients with atrial flutter, after producing important sympathetic discharge and subsequent 1:1 AV conduction, as well as the presence of predictors in the ECG which discourage its administration [3].

Conclusion

Atrial flutter with 1:1 atrioventricular conduction after administration of adenosine.

Conflict of interest P. Robles Velasco, I. Monedero Sánchez, A. Rubio Caballero, M. Chichakli Cela and Y. González Doorno declare that they have no competing interests.

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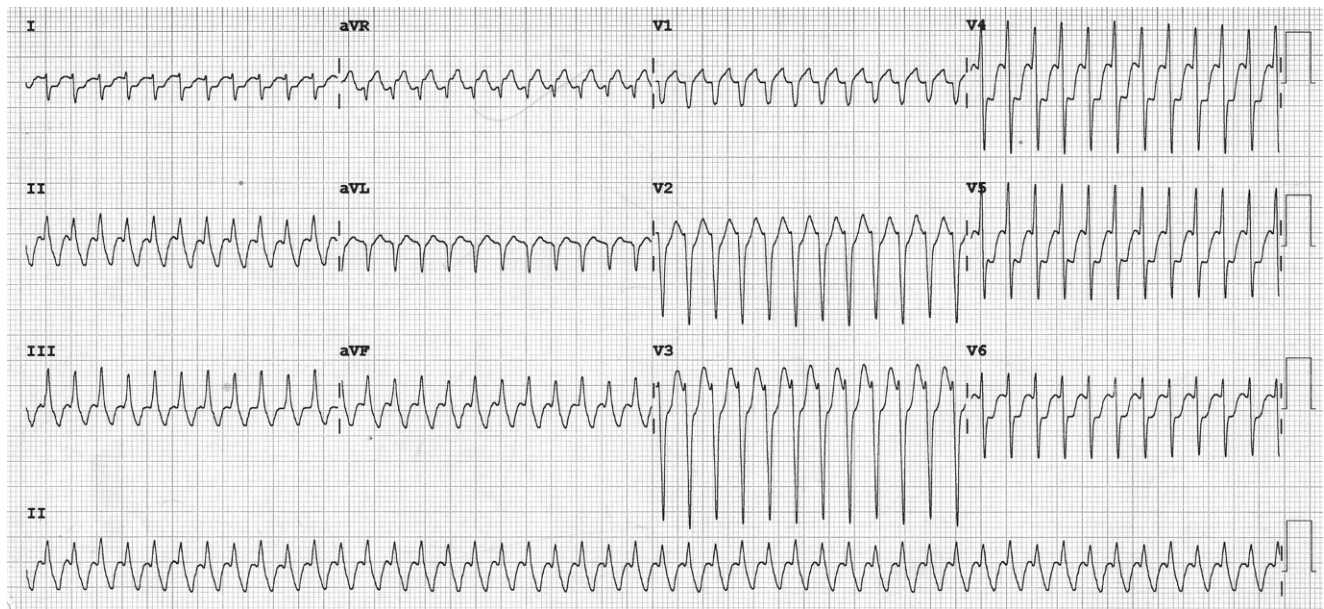


Fig. 1 ECG after administration of adenosine. Atrial flutter with 3:1 atrioventricular conduction was initially observed for a few seconds, but it then changed to 1:1 atrioventricular conduction, showing the potential proarrhythmic effect of adenosine