Palpitations, once again

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Answer to the rhythm puzzle

This is a narrow QRS complex tachycardia with a cycle length of 300 ms (200 beats/min). The differential diagnosis of a narrow-QRS complex tachycardia is AV nodal re-entry tachycardia, (AVNRT), AV re-entry tachycardia (AVRT), atrial tachycardia and sinus tachycardia. Atrial flutter and atrial fibrillation are less likely given the frequency and regularity of this tachycardia.

The differential diagnosis is solved by looking for the position of the P wave. In the left part of the ECG every

QRS-T complex looks the same, so it is not easy to determine the position of the P wave with certainty. At the right side of the ECG the 9th, 5th, and 2nd complex of the ECG (counting from the right) show a different ST segment (arrows in Fig. 1). It is very likely that the P wave is lacking here. In that case there is AV dissociation which narrows down the differential diagnosis to AVNRT (because all the others are not compatible with AV dissociation).

Conclusion AVNRT with occasional AV dissociation.

Fig. 1 Magnification of the narrow complex tachycardia

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