

Chapter 6

ELECTROCARDIOGRAPHIC FINDINGS OF WIDE QRS COMPLEX TACHYCARDIAS

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INTRODUCTION

Twelve derivation electrocardiography (ECG) obtained both during sinus rhythm and tachycardia may give important clues about the tachycardia mechanism. Information obtained from ECG may not only be valuable for clinical diagnosis but also increase the safety and success of electrophysiological study (EPS) and ablation procedures.

Tachycardia with QRS duration <120 ms is considered to be a 'narrow QRS complex tachycardia' and tachycardia with QRS duration ≥ 120 ms is considered to be a 'wide QRS complex tachycardia' on surface ECG. Narrow QRS complex tachycardias are usually of supraventricular origin; however certain rare type ventricular tachycardias (VT) may also manifest themselves with narrow QRS on ECG. Differential diagnosis for the wide QRS complex tachycardia includes VT, aberrantly conducted supraventricular tachycardia (SVT) and preexcitation.

In this chapter wide QRS complex tachycardias will be evaluated and clues from surface ECG will be emphasized for each type of wide QRS complex tachycardia.

ELECTROCARDIOGRAPHY IN WIDE QRS COMPLEX TACHYCARDIAS

Electrocardiographic differential diagnosis of wide QRS complex tachycardias may be challenging in clinical practice. VT, SVT with aberrant conduction, preexcitation and intraventricular conduction delay should be considered in the differential diagnosis of wide QRS complex tachycardia (Alzand & Crijs, 2011). VT is the most important diagnosis due its possible association with worse prog-

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