NARROW COMPLEX TACHYCARDIA — WHAT IS THE MECHANISM?

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HISTORY

40 year old man

Palpitations for 2 years

Often episodes terminate spontaneously, but on occasion required adenosine

Has had episodes lasting up to 36 hours

Bisoprolol and Rivaroxiban (hx of PE)

Had previously had an attempted ablation of presumed atypical AVNRT

- Slow pathway ablation
- 4 beats of tachycardia inducible post procedure only
BASELINE ECG
CLINICAL TACHYCARDIA
RETROGRADE CURVE FROM RV APEX
ANTEROGRADE CURVE FROM CS PROXIMAL
INCREMENTAL ATRIAL PACING
TACHYCARDIA INITIATION
12 LEAD OF TACHYCARDIA
TACHYCARDIA
VENTRICULAR ENTRAINMENT FROM RV APEX
HIS SYNCHRONOUS VPBS FROM RV APEX
MAPPING EARLIEST A SIGNAL
LV PACING FROM NEAR PATHWAY
HIS SYNCHRONOUS VPBS FROM LV NEAR PATHWAY
SIGNAL ON ABLATION
ABLATING EARLIEST A SIGNAL
THE DIFFERENTIAL DIAGNOSIS: ATYPICAL AVNRT

An activation sequence with prox CS leading is not unusual in atypical AVNRT, which may require ablation inside the CS os¹

In 356 patients with AVNRT, 20 (6%) had eccentric activation.

All had either fast-slow or slow-slow conduction (some also had slow-fast).

In 8 out of 20, earliest activation was at the left free wall²

TAKE HOME MESSAGES

Perform pacing manoeuvres close to putative pathway

Keep an open mind, especially if previous procedure hasn’t worked!