Entrainment mapping of ventricular tachycardia

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Figure 1. A) The diastolic potential (*) before the QRS complex is only present at the tip of the mapping catheter (MAP 1) and not at the proximal part (MAP 2). B) Termination of the monomorphic slow ventricular tachycardia (VT) at this critical site, with pacemaker rhythm (70 beats/min) from his own internal device.

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A 64-year-old male, with a history of a lateral myocardial infarction, presented with haemodynamically well-tolerated incessant therapy-resistant slow monomorphic ventricular tachycardia (mVT), despite implantable cardioverter defibrillator and antiarrhythmic drugs. The mechanism of this mVT was probably scar-related reentry.¹ According to the guidelines, catheter ablation was indicated in our patient.² During pacing and sustained mVT, entrainment mapping was performed at a site where the catheter recorded diastolic potentials (DP) (figure 1A). Entrainment with concealed fusion occurred: the morphology of the QRS complex during pacing was identical to the

Figure 2. Entrainment with concealed fusion during a sustained monomorphic slow ventricular tachycardia (VT). The morphology of the QRS complex during pacing (left side) was identical to the VT morphology (right side). The interval from stimulus to QRS complex (left) was similar to the interval from the diastolic potential to QRS complex (second left). The post-pacing interval (third left) was the same as the interval of the VT (right).

mVT morphology, the interval from stimulus to QRS complex was similar to the interval from DP to QRS complex, and post-pacing interval was the same as the cycle length of the VT (figure 2).^{3,4} Radiofrequency catheter ablation on this critical point within the reentry circuit terminated the mVT successfully (figure 1B). The patient remained free of VT recurrences afterwards. ■

In this section a remarkable 'image' is presented and a short comment is given.

We invite you to send in images (in triplicate) with a short comment (one page at the most) to Bohn Stafleu van Loghum, PO Box 246, 3990 GA Houten, e-mail: l.meester@bsl.nl.

'Moving images' are also welcomed and (after acceptance) will be published as a Web Site Feature and shown on our website: www.cardiologic.nl

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