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Titel des Beitrags: Cryoablation Versus Radiofrequency Energy for the Ablation of Atrioventricular Nodal Reentrant Tachycardia (the CYRANO Study): Results From a Large Multicenter Prospective Randomized Trial.

Abstract: Background- Cryoablation has emerged as an alternative to radiofrequency catheter ablation (RFCA) for the treatment of atrioventricular (AV) nodal reentrant tachycardia (AVNRT). The purpose of this prospective randomized study was to test whether cryoablation is as effective as RFCA during both short-term and long-term follow-up with a lower risk of permanent AV block. Methods and Results- A total of 509 patients underwent slow pathway cryoablation (n=251) or RFCA (n=258). The primary end point was immediate ablation failure, permanent AV block, and AVNRT recurrence during a 6-month follow-up. Secondary end points included procedural parameters, device functionality, and pain perception. Significantly more patients in the cryoablation group than the RFCA group reached the primary end point (12.6% versus 6.3%; P=0.018). Whereas immediate ablation success (96.8% versus 98.4%) and occurrence of permanent AV block (0% versus 0.4%) did not differ, AVNRT recurrence was significantly more frequent in the cryoablation group (9.4% versus 4.4%);
In the cryoablation group, procedure duration was longer (138±54 versus 123±48 minutes; 
P=0.0012) and more device problems occurred (13 versus 2 patients; P=0.033). Pain perception was 
lower in the cryoablation group (P<0.001). Conclusions- Cryoablation for AVNRT is as effective as 
RFCA over the short term but is associated with a higher recurrence rate at the 6-month follow-up. 
The risk of permanent AV block does not differ significantly between cryoablation and RFCA. The 
potential benefits of cryoenergy relative to ablation safety and pain perception are counterbalanced by 
longer procedure times, more device problems, and a high recurrence rate. Clinical Trial Registration-