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Titel des Beitrags: Transvenous cryoablation versus radiofrequency ablation of the slow pathway for the treatment of atrioventricular nodal re-entrant tachycardia: a prospective randomized pilot study.

Abstract: AIMS: This is a prospective, randomized study comparing transvenous cryoablation with radiofrequency (RF) ablation of atrioventricular nodal re-entrant tachycardia (AVNRT). METHODS AND RESULTS: In this pilot trial, 200 patients with AVNRT were randomized to undergo cryoablation or RF ablation of the slow pathway. A 7 Fr 4-mm-tip cryocatheter (Cryocath) was used for cryomapping and cryoablation. Cryomapping was performed at the temperature of -30 degrees C to test the effect on the candidate ablation site. Following successful cryomapping, cryoablation was performed to produce an irreversible lesion by freezing to -75 degrees C. Procedural success, defined as elimination of the slow pathway or noninducibility of AVNRT, was achieved in 97/100 (97%) patients in the Cryo group vs. 98/100 (98%) patients in the RF group. No permanent complete AV-block occurred in either group. During a median of 246 days of follow-up, 8 patients in the Cryo group and 1 in the RF group had AVNRT recurrence. The cumulative incidence of primary endpoint (a combination of procedural failure, permanent complete AV-block and AVNRT recurrence) was significantly higher in the Cryo group than in the RF group (P=0.03, Log-rank test). CONCLUSIONS: The
results of this pilot study indicate that transvenous cryoablation using a 4-mm-tip cryocatheter is associated with a comparable acute success rate but a higher recurrence rate as compared with RF ablation in patients with AVNRT. Potential benefits of cryoablation for ablation of AVNRT need to be determined in a larger multi-centre trial.