Cryoablation for parahissian accessory pathways

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Introduction: Cryomapping and cryoablation is preferred for parahissian accessory pathways since close relationship to his bundle. We report 20 patients with Wolff Parkinson White syndrome who underwent cryoablation of the parahissian accessory pathways.

Methods and Results: From September 2010 - December 2011, 20 patients between 8-31 ages underwent cryoablation. Body weights were above 25 kg. All of the patients’ accessory pathway was determined during electrophisiologic study (EPS) as parahissian. Cryoablation performed in -80° degree for 4-5 minutes on average 4 episodes. Radiofrequency (RF) catheter ablation used in six patients who had multiple accessory pathways. Cryoablation performed on places where tachycardia stopped during cryomapping, preexcitation disappeared by catheter pressure or cryomapping. In all patients except one acute success achieved and determined by unable to provoke tachycardia and disappearance of preexcitation. In one patient temporary complete AV block observed during 3rd minute of cryoablation, 2 patient developed right bundle branch block. Average procedure time 144 minutes, fluoroscopy time was 36 minutes. After average seven months follow up, there were two recurrences. In one of these patients transeosophageal EPS performed but, tachycardia couldn’t be induced.

Conclusion: Cryoablation can be used safely in pediatric patients whose accessory pathway close to the conduction system. Complication develops rarely compared to the RFA. Complete AV block can be observed but it is temporary. Although recurrence is reported higher compared to RFA, the present study represents an acceptable recurrence rate.

Key words: cryoablation, Wolff Parkinson White, parahissian