Abstract: P366

Safety and feasibility pilot study on 3d pace-mapping of koch's triangle during zero x ray ablation of atrioventricular nodal reentrant tachycardia

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Background. Slow pathway ablation of AVNRT can be complicated by unexpected AV block due to an abnormal location of the anterograde fast pathway. Pace-mapping (PM) of Koch’s triangle (KT) has been demonstrated to be useful in preventing this complication. We aimed to test a method to integrate PM of KT in 3D mapping during zero-X-ray procedures.

Methods and Results: 28 consecutive patients (mean age 57.2±14.2 SD, 56.2% male) undergoing zero-X-ray ablation of AVNRT underwent CARTO 3D-PM of KT. Right atrium and coronary sinus 3D-map was performed as first step. PM was then achieved by the ablating catheter stimulating the KT in anteroseptal, posteroseptal and midseptal region respectively. Each point has been collected on CARTO measuring the interval between the stimulus to the His deflection. The 3D-PM of KT was achievable in 100% of the patients and has been used as reference for slow-pathway ablation (figure 1). No abnormal location of the anterograde fast pathway was found, possibly because of the small number of patients.

Conclusion: This is the first study to show how to perform 3D-PM of KT during zero-X-ray AVNRT ablation. It is a feasible and promising technique to prevent unexpected AV block. Our preliminary results would encourage larger cohort studies.