Trans-Thoracic Echocardiography Guided Ablation of Left Lateral Accessory Pathway

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Introduction: Radiofrequency catheter ablation (RFA) of majority of the arrhythmias is currently done under fluoroscopy guidance. In recent years, Electroanatomic Mapping and Intra-Cardiac Echocardiography have been used to facilitate precise definition of anatomy and reduce fluoroscopy time. Echocardiography guided transseptal puncture and placement of diagnostic catheters has been reported previously.\(^1,2\) To the best of our knowledge, use of trans-thoracic echocardiography (TTE) for mapping and ablation of arrhythmia has never been reported. We present a case of left lateral accessory pathway ablation done predominantly under trans-thoracic echocardiography (TTE) guidance with minimal use of radiation.

Methods: A thirty year old lady with symptoms of recurrent palpitation and documented supraventricular tachycardia was taken-up for electrophysiological study (EPS) and RFA.

Result: EPS was done after fluoroscopy guided placement of diagnostic catheters. Tachycardia induced with atrial pacing revealed orthodromic tachycardia using a left lateral accessory pathway. Subsequent procedure, RFA, was done without the use of radiation. Trans-septal puncture and manipulation of mapping catheter around mitral annulus were done solely under TTE guidance (Fig 1&2). Successful RFA of accessory pathway was done with single RF energy application (400c, 60W) at the site of A-V fusion.

Conclusion: TTE guided catheter ablation of left-sided accessory pathways is simple, feasible and merits further attention. This technique may be especially helpful in preventing x-ray exposure in particularly in children and pregnant women.