



Trans-Thoracic Echocardiography Guided Ablation of Left Lateral Accessory Pathway

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Clinical Image

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 transeptal 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.

A thirty year old lady with symptoms of recurrent palpitation and documented supraventricular tachycardia was taken-up for Electrophysiological Study (EPS) and RFA. 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 was done solely under TTE guidance (Figure 1 and 2). Successful

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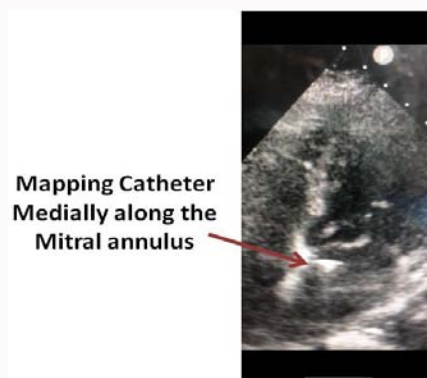


Figure 1: Upper panel: Trans-thoracic echocardiography apical four chamber view showing mapping catheter medially along the Mitral annulus.

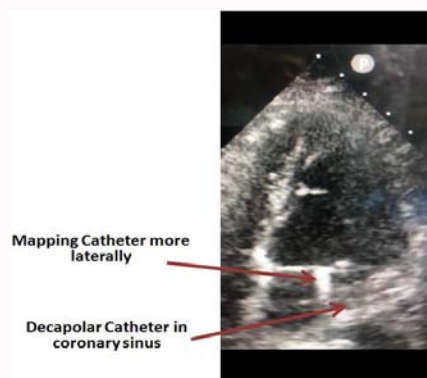


Figure 2: Lower panel: Imaging from the same position shows mapping catheter in a more lateral position. The decapolar catheter in the coronary sinus can also be visualized.

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.

References

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