Shortcut in our future

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Introduction : Single center experience in paediatric cases and their clinical outcome after being treated by adults electrophysiologist in our center. This is a few cases terminating WPW/AVRT in paediatric using 3D mapping.

Methods : This study explores the usage of 3D mapping guidance in helping our adults electrophysiologist to determine the exact location of accessory pathway in paediatric conduction system of the heart which is maybe slightly different compared to adults in term of sizes and the structures. Electrophysiology study and radio frequency ablation (RFA) was done using Carto 3D Mapping system by Biosense Webster and Ensite NavX 3D system by Abbott Medical (formerly known as St. Jude Medical) Delta wave seen in WPW patients during baseline ECG and fused signal seen in SVT patients during tachycardia indicated AVRT. Modification using RFA was done using 3D mapping to eliminate the accessory pathway.

Result : Post RFA, delta wave in WPW patient disappear and baseline ECG return to sinus rhythm and no tachycardia can be induced in WPW and SVT (AVRT) patients.

Conclusion : In conclusion, the usage of 3D mapping guidance system really helps our adults electrophysiologist to locate the exact site of the origin of the accessory pathway. It is also safe and fast (save us a lot of time while dealing with paediatric cases). Our study also shows that in paediatrics, female tend to have accessory pathway in their conduction system compared to male.