

HISTORY OF CARDIAC ELECTROPHYSIOLOGY IN SGNHC

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A dream to initiate and establish cardiac electrophysiology service was looming on our minds since the centre started its cardiac catheterization procedures. The procedures started with right heart catheterizations, followed by coronary and peripheral angiographies, mitral balloon valvotomy and percutaneous coronary interventions. The final stepping stone was cardiac electrophysiological study and radiofrequency ablation.

The field of cardiac electrophysiology was totally new to SGNHC until 2003. The starting point was the visit of Expert Team led by Dr. Ajay M. Naik from India. We decided to select the most straight forward cases like Paroxysmal Supraventricular Tachycardias (PSVT) and WPW syndrome to start with. The team had to teach us literally everything; from the machine, the catheters and the access techniques to the actual procedures of ablations. Dr. Naik's next few visits were important to prepare the venue for real work in EPS/ablations.

In line with the concept of on-the job training, we invited Dr. Thomas Peter, a senior electrophysiologist and the then Director of Cedars Sinai Medical Center, Los Angeles, USA. Our learning curve took an amazing turn in a positive direction when he visited our centre for the first time in March 2005. Despite his age he had zeal and enthusiasm of a much younger person and showed keen interest in teaching. He patiently guided us in the intracardiac ECGs and gave us hands on training. He could go on and on in the cath lab, doing his work meticulously and side by side teaching us, encouraging us to ask him questions. His presence was magnetic and charismatic. He simply loved to teach and spread knowledge to as many as he could. Gradually the mystifying and dreaded intracardiac ECGs began to unfold and fit like a picture of a jigsaw puzzle in our brain. It took us sometime for us to get familiar with the EP machine itself. As we were familiar in operating desktop computers it took us no time to master the EP machine.

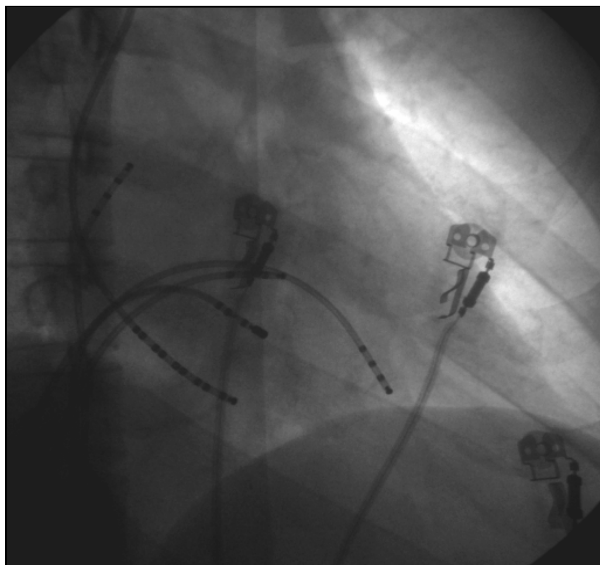


Fig: Fluoroscopic image showing EP catheters inside heart



Fig: EP Tracing: Typical Atrio-ventricular Nodal Reentrant Tachycardia

Till date we have done 145 cases of EP studies and RF ablations.

After him came Dr. Jayprakash, in March 2005; an electrophysiologist with an interventional cardiology background from Wockhardt Hospital and Heart Institute, Bangalore. He was not only very quick and confident in doing the cases but also very keen on teaching us and encouraged us to do cases by ourselves.

From the beginning of 2006 we started doing the EPS and ablations ourselves. We carefully selected the cases and try to include patients with ECG features of typical Atrio – Ventricular Reentry Tachycardias (AVNRTs). Till date a total of 34 cases of EPS and RFA are performed successfully by our own team. Out of which 11 had typical AVNRTs and all were successfully ablated. Trains of accelerated junctional rhythm (signifies successful ablation of slow pathway of the AV node) was seen in all of them. One had concealed right free wall pathway which was also ablated successfully. There were two left lateral pathways as well but the ablation attempt was unsuccessful. There were no complications except for one episode of vasovagal attack and two episodes of atrial fibrillation out of which one was defibrillated with 100 Joules of synchronized DC shock. Success specially regarding typical AVNRT ablations have increased our confidence level to new heights.

We are indebted to Dr. Tom Peter and Dr. Jayprakash, without whom it would have been difficult for us to reach the stage which we are right now. A formal training in EPS and RFA in a high volume centre would certainly help us to refine our technique and gain more experience in the field of cardiac electrophysiology and thereby abate the need to go abroad for EPS and ablations