

ONE YEAR EXPERIENCE OF ELECTROPHYSIOLOGY, RADIOFREQUENCY CATHETER ABLATION AND DIFFERENT PACEMAKERS STUDY IN LABAID CARDIAC HOSPITAL DHAKA, BANGLADESH

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Background: The Electrophysiology Study (EPS) and Catheter Radiofrequency Ablation (RFA) is an effective method of treatment of different arrhythmias. Different pacemakers, Automated Implantable Cardioverter Defibrillator (AICD) are also effective treatment for cardiac arrhythmias. The purpose of this study was to analyze the result of EPS, RFA and use of different cardiac implantable devices in the hospital. **Methods:** In 2024, 239 different types of arrhythmias, supraventricular tachycardia (SVT) ventricular tachycardia (VT) were diagnosed & ablated. Among 239 cases Atrioventricular nodal reentry tachycardias (AVNRT) were 137, atrioventricular reentry tachycardias (AVRT) were 90, ventricular tachycardias (VT) were 7, others were 5 cases. One hundred eighteen (118) different types of Devices Implanted and Generator replaced Among the devices usual pacemakers single chamber, dual chamber pacemakers were more in number. Others devices were automated implantable cardioverter defibrillator (AICD), cardiac resynchronized therapy (CRTP & CRTD), conduction system pacing (CSP), leadless pacemaker (MICRA). We hope in near future a new pacemaker BACKMAN bundle pacemaker will be implanted here to treat diastolic dysfunction and slow atrial fibrillation. One electrophysiological case atrial flutter (AFL) was diagnosed and ablated by using innovative technique. 1924 our EP department was involved with Epidemiological study for atrial fibrillation in Bangladesh in collaboration with Sydney, Australia. Research shows the Burden of atrial fibrillation in the Asia-Pacific Region is changing.¹ Prevalence of AFib in Bangladeshi population is 4.1 %, world standard is 1.5 to 5.5%. AFib burden in Bangladesh is 9%, world standard is 5% to 11%.² **Results:** The effectiveness of the procedure was according to the localization of arrhythmia site. During slow pathway RFA in case of AVNRT AV node block was unremarkable. Among the accessory pathway RFA success was more with left lateral followed by posteroseptal pathway. The least success rate was for anteroseptal pathway. For Device implantation, major complications requiring surgical intervention were none. Very few cases developed pacemaker infection and it was managed efficiently. **Conclusion:** Radiofrequency catheter ablation of different arrhythmias specially the supraventricular tachycardias has good initial (90%) and long-term results with a low recurrence rate (5%). Cardiac implantable devices give tremendous benefit for different arrhythmias. Sometimes it is life saving, reduce mortality and hospital admission.

Keywords: Radiofrequency ablation (RFA), Cardiac arrhythmias, Implantable cardiac devices

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