



EMBARGOED UNTIL 20th NOVEMBER 2022 1730HRS SGT

Pulsed Field Ablation

Context:

Pulsed Field Ablation (PFA) has now become a promising new modality for the treatment of AF ablation. In this session, our panellists share on new evidence data supporting PFA technologies in AF ablation and first-hand experience with the use of PFA.

Summary:

Dr Pierre Jais opened the talk with biophysics of PFA by introducing the concept of electroporation and its myocardial selectivity as a threshold phenomenon: dead above the tissue-specific E-field threshold value, and alive below the threshold.

Dr Atul Verma showcased early clinical trial data, first in-human experience, and real-world single centre experience with the use of PFA in AF ablation, demonstrating increased rates of freedom of AF up to 12-months. Dr Atul Verma highlighted the potential advantages with PFA technology that includes improved efficiency in terms of total procedural time, as well as improved safety compared to conventional thermal AF ablation.

Dr Mehrdad Emami then illustrated how PFA can be successfully performed in AF ablation. Dr Mehrdad Emami emphasised on 5 key factors comprising waveform polarity, catheter-tissue contact, field strength, number of applications, and catheter configuration, in determining lesion depth and durability that may translate to successful ablation results.

Lastly, Dr Eric Lim shared on Singapore experience at National Heart Centre Singapore (NHCS) with the use of Farapulse PFA system as a single-shot technology for AF. After a didactic training session and hands-on session under “wet-lab” setting, 6 operators did a total of 13 PFA ablation cases over a week in September 2022. Twelve of 13 of cases were performed via conscious sedation. Mean PVI time was 36.5 minutes. Dr Eric Lim went on to show intra-procedural observational findings acquired from intra-cardiac echocardiogram and fluoroscopy during PFA ablation, and patient-reported intra-procedural pain score as well as the analgesic regimen that was utilised without general anaesthesia.

Message:

This session summarised new evidence data supporting PFA technologies in AF ablation and operators’ first-hand experience including our Singapore experience at NHCS.

Session details:

Symposium 40 – Pulsed Field Ablation (Sunday 20th November 2022 14.15-15.25 pm SGT)

Author:

Pung Xuanming

National Heart Centre Singapore

Press contact:

Ms Felicia Teng

secretariat@aphrs2022singapore.com