**ANALYSIS OF REMOTE MAGNETIC CATHETER NAVIGATION SYSTEMS USE FOR ABLATION PROCEDURES OVER TIME**

E. Aziz, **O. Reynbakh**, I. Khan, S. Sadiq, N. Souvaliotis, J. Aziz, A. Malinay, P. Boktor,

D. Mehta

Mount Sinai St Luke's and Mount Sinai West Hospitals, New York, NY, USA

**Background**: Remote Magnetic Catheter (RMC) Navigation Systems are becoming increasingly used in cardiac ablations. We have been using RMC in our academic institution to perform complex cardiac ablation procedures since 2012. There is a learning curve for physicians who operate these RMC systems

**Objective:** We aimed to evaluate the learning curve documented by RMC clinical time and fluoroscopy time as well as the effect on the procedural outcome.

**Method:** Our study included 203 consecutive patients who underwent ablation procedures using the (RMC) from 2012­ 2016 (98 AFib, 63 VT/PVC, 42 SVT). Outcomes were assessed over five years of usage.

**Results:** Cohort mean age was 60 ± 13 years, 60% male, 68% had hypertension, 21% were diabetics, 30% had CAD and 40% had history of CHF. Overall success for all procedures using RMC was 92%; with zero complications. Average RMC fluoroscopy time (RMCF) was 11 ± 9 mins, total fluoroscopy time (TF) 32 ± 23 and clinical procedural time (CP) 160 ± 62 mins. Over the follow up period we noted constant decrease in RMCF, TF and CP times, respectively (See Fig). Using logistical regression models, female gender and absence of hypertension were predictors of better outcomes.

**Conclusion:** Our data suggest that the feasibility of using RMC improves over time as manifested by overall decrease of clinical procedure and fluoroscopy time; signifying a gradual but steep physician learning curve. It also reinforces published data about safety and success of using RMC for complex ablation procedures.

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