Navik 3D is a novel cardiac mapping system that allows localization of radiopaque structures.

Use of the cryoballoon aided by Navik 3D for additional lesions beyond pulmonary vein isolation resulted in lower fluoroscopy use and procedure time for complex persistent AF cases.

FIGURE 1

- Radiation dose, fluoroscopy time, and procedure time were significantly lower with Navik 3D compared to EAM alone or combined with EAM.

FIGURE 2

- Ninety percent of ablation lesions were performed with Navik 3D, while 85% were performed with EAM alone.

FIGURE 3

- Ninety percent of ablation lesions were performed with Navik 3D, while 85% were performed with EAM alone.

DISCUSSION

- Recent literature has reported effectiveness of cryoballoon ablation for isolation of the left atrial posterior wall and roofline.
- Navik 3D is the ONLY cardiac mapping system which allows the user to locate any radiopaque object, including the cryoballoon, in 3D (Figure 1) without limitations on catheter manufacturer.
- Navik 3D utilizes two views, for instance AP and LAO 20, to localize the cryoballoon in a 3D map. Each localization requires 6 seconds of fluoroscopy.
- In this retrospective study, using the Navik 3D mapping system paired largely with the cryoballoon, we report shorter procedure time, reduced fluoroscopy dose, and fluoroscopy time when compared with electroanatomic mapping (EAM) or both Navik 3D combined with EAM.

This outcome might be due to the fact that cryoballoon lesions have a much larger surface, rather than the point-by-point RF ablation lesions.