3D LOCALIZATION FOR LEFT BUNDLE BRANCH AREA PACING

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PROBLEM
Left bundle branch area pacing is a novel physiologic pacing technique where the pacing lead is inserted through the RV septum to capture the LBB. Among the challenges encountered are identifying the RV septal site, assessing the plane of the lead, determining the depth of insertion, and repositioning the lead to a new site if needed.

BACKGROUND
Navik 3D is a unique localization system that can convert 2D fluoroscopy images into 3D. The advantage to this technology lies in the ability to visualize in real-time the lead placement and adjust the lead according to previous attempts at lead placement.

OBJECTIVE
The objective of this prospective study was to determine the feasibility of using the novel Navik 3D device to visualize the lead placement in real-time during a procedure.

METHODS
We studied six consecutive patients with a mean age of 72 years who underwent LBBA pacing. Informed consent was obtained from all patients. Patients presented with either complete heart block (n=4) or sinus node dysfunction (n=2). Patient characteristics including female sex (n=2), mean body mass index (33.8 kg/m²), mean left ventricle ejection fraction (51%), mean intra-ventricular septal diastolic thickness (1.06cm), and presence of hypertension (n=4), diabetes (n=4) atrial fibrillation (n=4), and left bundle branch block (n=1).

RESULTS
All patients had a successful placement in the LBBA with qR in V1, short mean left ventricular activation time in V6 73.1 ms, and left bundle potential was recorded in two patients.

DISCLOSURES
No disclosures

CONCLUSION
Localization of LBBA in 3D is feasible and may be useful for optimal lead placement.