

**P377****Zero-fluoroscopy ablation with ultrasound-guided sheath insertion**

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**Background:** Radiation exposure during catheter ablation procedures is a risk for both the patient and electrophysiology staff. Recently, the feasibility and effectiveness of zero-fluoroscopy ablation have been shown. However, ensuring a safe sheath insertion through the venous system toward the heart is a concern in catheter ablation using the zero-fluoroscopy technique.

**Purpose:** The objective of this study was to confirm feasibility and safety for zero-fluoroscopy ablation using ultrasound-guided sheath insertion.

**Methods:** Zero-fluoroscopy catheter ablation was performed in 220 patients (185 patients with atrial fibrillation (AF), 26 patients with supraventricular tachycardia (SVT), and nine patients with ventricular arrhythmias (VA)) using a 3-dimensional electro-anatomical mapping system, contact force monitoring, and intracardiac echocardiography (ICE) imaging. In all cases, ultrasound-guided sheath insertion was performed through the femoral vein. In 6 cases of VA, the retrograde approach through the femoral artery was performed with ICE imaging and contact-force monitoring. The endpoint of ablation for AF was pulmonary vein ablation in all cases and addition of left atrial posterior wall isolation in persistent AF cases. The endpoint of ablation for SVT and VA was noninducibility after ablation.

**Results:** The endpoints of ablation were achieved in all cases. The fluoroscopic time during ablation procedures was 0 seconds. There were two complications (one cardiac tamponade and one acute heart failure). There were no complications related to sheath insertion.

**Conclusions:** Zero-fluoroscopy catheter ablation with ultrasound-guided sheath insertion may be feasible and can be performed safely. This method eliminates exposure radiation safely, which is a concern of zero-fluoroscopy endocardial catheter ablation.