Abstract: **P1561**

Subcutaneous implantable cardioverter-defibrillator after transvenous lead extraction: a single-center experience

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Objectives:

The number of transvenous lead extraction (TLE) procedures is continuously rising due to device-related complications such as local or systemic infection, lead malfunction and vascular issues. This study was designed to provide data on outcome and safety as well as long-term follow-up in patients who received a subcutaneous implantable cardioverter-defibrillator (S-ICD) after TLE.

Methods:

Patients who underwent TLE for ICD or CRT-D device removal with subsequent S-ICD implantation were included in the study. Data on patient characteristics, outcome and complications as well as follow-up was retrospectively analyzed.

Results:

Fifteen patients received S-ICD after TLE between August 2014 and July 2018, with a mean age of 54.9 ± 16.6 years. 93.3% of the patients were male. Two of the patients had a CRT-D and 13 an ICD. Indications for TLE were pocket infection (n=5; 33.3%), systemic infection (n=5; 33.3%), lead dysfunction (n=3; 20.0%) and venous occlusion (n=2; 13.3%). The complete procedural success rate regarding TLE was 93.3%. One major extraction-related complication was observed. No procedure-related complications regarding the S-ICD implantation procedures were observed. Mean follow-up time was 708 days. One inadequate shock due to myopotentials (8.3%) was documented. No recurrent device infections were noticed. No deaths were observed during the follow-up period.

Conclusion:

The subcutaneous implantable cardioverter-defibrillator is a safe and suitable alternative for appropriate patients after transvenous lead extraction for any reason. The long-term follow-up showed no recurrent infections and similar results in terms of defibrillator shocks compared to the transvenous systems.