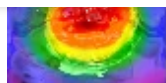


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PACING AND CLINICAL ELECTROPHYSIOLOGY

DEVICES

## Clinical outcomes of subcutaneous implantable cardiac defibrillator implantation – Iran SCD registry

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## Abstract

### Background

The subcutaneous implantable-defibrillator (S-ICD) is a relatively new alternative to the transvenous ICD system to minimize intravascular lead-related complications. This paper presents outcome of S-ICD implantation in patients enrolled in Iran S-ICD registry.

### Methods

Between October 2015 and June 2022, this prospective multicenter national registry included 223 patients with a standard indication for an ICD, who neither required bradycardia pacing nor needed cardiac resynchronization to evaluate the early post-implant complications and long-term follow-up results of the S-ICD system.

### Results

The mean age of the patients was  $45 \pm 17$  years. The majority (79.4%) were male. Ischemic cardiomyopathy (39.5%) was the most common underlying disorder among patients selected for S-ICD implant. Most study patients (68.6%) had ICD for primary prevention of sudden cardiac death. Seven patients (3.1%) were found to have suboptimal lead positions. Six patients (2.7%) developed a pocket hematoma; all were managed medically. During a mean follow-up of 2 years, the appropriate therapy was recorded in 13% of the patients and inappropriate ICD intervention mainly due to supraventricular tachycardia in 8.9%. Pocket infection was observed in four patients (1.8%) and five patients (2.2%) died mainly due to heart failure.

### Conclusion

S-ICDs were effective at detecting and treating both induced and spontaneous ventricular arrhythmias. Major clinical complications were rare.

## CONFLICT OF INTEREST STATEMENT

Authors contributing to this project have no conflict to disclose.

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## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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