these regional abnormalities are mild, they may still provide the substrate for AF and therapeutic targets for ablation.

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P066
CARDIAC IMPLANTABLE ELECTRONIC DEVICE LEAD PERFORATION RATES, MANAGEMENT AND OUTCOMES

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BACKGROUND: Lead perforation after cardiovascular implantable electronic device (CIED) implant is an uncommon but well-recognized complication. There are no strong recommendations from society guidelines on management; indication for lead revision and pericardial drainage are usually decided by the treating clinicians.

METHODS AND RESULTS: A prospective registry of all CIED implant procedures was started at our institution in January 2007. The registry had a specific focus on prospectively identifying all CIED implant complications. Between April 2007 and September 2019, 10290 patients received a de novo CIED implant; 3737 (36%) were implantable cardioverter-defibrillators (ICD). There were 4704 atrial leads and 6514 ventricular pacemaker leads implanted. We identified 43 potential perforations from the registry and after chart review, 27 confirmed perforations were included in the study. Patient characteristics and management are shown in Table 1. Overall perforation rate occurred in 27/10920 implants (0.26%). The atrial perforation rate was 0.09%; there was no difference in ventricular perforation rate between ICD vs pacemakers (0.16% vs 0.25%, p=0.37). There was no difference in pacemaker lead perforation rate between active and passive leads (0.2% vs 0.16%, p=0.63). Perforation was diagnosed after a mean of 14.2±26.9 days following implant. Of the 27 patients, 13 (48%) underwent lead revision only, 4 (15%) underwent pericardiocentesis only, and 5 (19%) underwent both pericardiocentesis and lead revision. Five (19%) patients were managed conservatively. Among the 13 patients with a moderate or greater effusion, 4 were managed without pericardiocentesis. All 14 with either lead parameter change or diaphragmatic stimulation underwent lead revision. There were no recurrent cases of tamponade after the lead was pulled back and repositioned. In patients managed conservatively, there were no unplanned interventions. Importantly, there were no deaths, and no patients required sternotomy.

CONCLUSION: The rate of CIED lead perforation in our large experience was 27/10920 (0.26%) implants. A subset of patients can be managed safely conservatively (for example those with small pericardial effusion and without lead parameter changes or diaphragmatic stimulation); the remainder may require lead revision and/or pericardiocentesis. No patients in our study required sternotomy. There were no recurrent tamponades after the perforated lead was pulled back and repositioned.

Table 1: Patient characteristics.	
Female	14/27 (52%)
Age (mean, years)	72.7±9.4
On anticoagulation	10/27 (37%)
Time from implant to diagnosis (mean, days)	14.2±26.9
Perforated lead type	
Active implantable cardioverter-defibrillator	6/27
Passive pacemaker	7/27
Active pacemaker	14/27
Chamber perforated	
Ventricle	21/27
Atrium	3/27
Both	1/27
Unclear	2/27
Pericardial effusion:	
None	7/27
Trivial/small	7/27
Moderate	5/27
Large	8/27
Lead threshold changed	13/27 (48%)
Diaphragmatic stimulation	4/27 (15%)
Pericardiocentesis and lead repositioning	5/27
Pericardiocentesis only	4/27
Lead repositioned only	13/27
Conservative	5/27

P067
CARDIOLOGIST EVALUATION OF ELECTROCARDIOGRAM COLLECTED AT THE WAIST WITH TEXTILE ELECTRODES

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BACKGROUND: The Skiin Underwear is a wearable medical device in the form of undergarments that captures ECG signals using textile electrodes incorporated into a clothing item