pacemaker or subcutaneous ICD. Follow-up was performed with TEE in index hospitalization and outpatient transthoracic echocardiogram (TTE).

**Results:** Fifteen patients (7 females; average age 65.6 ± 14.2) with 24 total leads met the criteria outlined above. Improvement in TR, confirmed by postoperative TEE, was achieved in the entire cohort. All patients were discharged alive. There were no major or minor complications associated with the use of TLE for the resolution of TR in our series. Follow-up between 4-8 months with TTE confirmed no significant TR.

**Conclusion:** Tricuspid regurgitation was successfully reversed with TLE in our cohort. Further clinical studies are needed to validate protocols.

**CI-545-04**

**SINGLE CENTER OUTCOMES OF LEAD EXTRACTION IN PATIENTS WITH SEVERE TRICUSPID REGURGITATION**

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**Background:** Transvenous leads can cause severe tricuspid regurgitation (TR) due to leaflet impingement; however, there is paucity of data evaluating the benefit of lead extraction for improvement in TR and what patient-specific factors might predict TR improvement after lead removal.

**Objective:** To investigate (1) the effect of transvenous lead extraction (LE) and change in severity of tricuspid regurgitation, and (2) identify patient characteristics that are associated with improvement in TR.

**Methods:** Among consecutive patients with preprocedural electrocardiogram gated CT undergoing LE between Jan 2017 and Aug 2019, patients with severe TR at the time of the procedure were identified. Assessment of severe TR and mechanism of TR was made on pre-extraction TEE. Post procedural TR assessment was done by TTE performed at a median follow up of 4.8 ± 1.3 months.

**Results:** 16/69 patients with native or bioprosthetic tricuspid valve and single right ventricular lead coursing through the tricuspid valve had evidence of severe TR (Table). 9 patients were referred for lead extraction for TR due to impingement of tricuspid valve. 7 patients underwent lead extraction for other reasons. 2/16 patients with RV pacing leads had improvement in TR to mild range, both of which had undergone lead extraction for tricuspid valve leaflet impingement whereas 0/7 patients undergoing lead extraction for other reasons had any improvement in TR. The only significant association with improvement in TR was average lead dwell time of 6.5 months, compared to average lead dwell time of 4.1 years for rest of the patients without improvement in TR. There was no association noted between presence of RV dysfunction/dilation at the time of lead extraction and improvement in TR post extraction.

**Conclusion:** None of the patients with leads older than 7 months had any improvement in TR. Potential etiologies include (1) progressive or irreversible leaflet fibrosis, (2) progressive tricuspid regurgitation which, when sustained, may promote further tricuspid annular dilation, reduce RV function, and worsen TR. These factors limit improvement in TR with LE unless LE is performed acutely after recognition of lead impingement. Further studies are needed to evaluate additional patient characteristics associated with TR improvement after LE.

**ABSTRACT PE-565:**

**Advances in Adult Congenital Heart Disease**

Saturday, April 30, 2022

10:30 AM - 11:30 AM

**PE-565-01**

**PROGRAMMED VENTRICULAR STIMULATION AS AN ADDITIONAL PRIMARY PREVENTION RISK STRATIFICATION TOOL IN ARRHYTHMOGENIC RIGHT VENTRICULAR CARDIOMYOPATHY: A MULTINATIONAL STUDY**

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**Background:** A novel risk calculator predicting sustained ventricular arrhythmias (VA) in patients (pts) with arrhythmogenic right ventricular cardiomyopathy (ARVC) was recently proposed. It is unknown if programmed ventricular stimulation (PVS) provides additional prognostic value.

**Objective:** To test if PVS provides additional prognostic value in pts with ARVC without previous VA at the time of diagnosis.

**Methods:** All pts with definite ARVC, no history of sustained VAs at diagnosis, and PVS at baseline were extracted from 7 ARVC registries. The calculator-predicted risk for sustained VAs was assessed in all pts. Independent and combined performance of the calculator and PVS on sustained VAs were assessed across 5-year follow-up (f.u.).

**Results:** 288 pts (41.0 ± 14.9 years, 55.9% male, RVEF 42.5 ± 11.1%) were enrolled. At PVS, 137 (47.6%) pts had inducible VT. During f.u., 83 pts with a positive PVS and 37 with a negative PVS had sustained VA (p < 0.001). Inducible VT predicted clinical sustained VA during the 5-year f.u. (HR 4.21; p < 0.001) and even after accounting for the calculator-predicted risk (HR 2.97; p < 0.001). The model comprising both predictors

**ABSTRACT PE-565:**

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