EXTERNALIZATION OF CONDUCTOR CABLES IN QUICKSITE AND QUICKFLEX LEFT VENTRICULAR LEADS

Oral Contributions
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Background: We intended to evaluate the incidence of electrical and mechanical failure of QuickSite (QS) and QuickFlex (QF) left ventricular (LV) leads which are a part of a lead advisory.

Methods: We invited all 154 alive patients who had the QS and QF leads implanted at our center to participate in this prospective study. High resolution fluoroscopy was performed in multiple views to look for conductor externalization. Patients also underwent device interrogation looking at the LV lead parameters in different configurations. Lead structure was graded as 0 (normal), 1 (slightly abnormal), 2 (impending externalization) and 3 (complete externalization). Mechanical failure was defined as Grade 2 or 3.

Results: We report the interim analysis of the first 28 patients (Models 1056 =3, 1058 =1; 1156 =11 and 1158 =13) who completed the evaluation. Mean age was 64 ±11 years with 86% males. Mean age of the lead was 64 ±12 months. On fluoroscopy grade 0, 1, 2 and 3 were seen in 11 (39%), 10 (36%), 2 (7%) and 5 (18%) respectively. Mechanical failure (7; 25%) occurred more likely in Models 1056/1156 leads compared to 1058/1158 (43% vs 7%; p=0.03) and in females (75% vs 17%; p =0.013). There was no impact of patient age, lead age or other patient or lead characteristics on the likelihood of having mechanical failure. None of patients had electrical failure on device interrogation.

Conclusion: QS and QF LV leads are at a high risk for mechanical failure with no evidence of electrical failure.