



Arrhythmias

SURVIVAL AND REINFECTION AFTER ENDOCARDITIS OR POCKET INFECTION IN PATIENTS WITH LEFT-VENTRICULAR EPICARDIAL LEADS

Poster Contributions

Poster Sessions, Expo North

Saturday, March 09, 2013, 3:45 p.m.-4:30 p.m.

Session Title: Arrhythmias: Devices I - Identification and Avoidance of Complications Associated with Implantable Devices

Abstract Category: 8. Arrhythmias: Devices

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Background: There is scant data regarding management of endocarditis or pocket infection in patients with epicardial leads. This study examines morbidity and mortality in infected patients with Left Ventricular (LV) epicardial leads in comparison to infected individuals with coronary sinus (CS) leads.

Methods: 64 patients with Cardiac Resynchronization Therapy (CRT) devices with and without LV Epicardial leads who underwent device/lead extraction at Cleveland Clinic from 2002 to 2007 were included. 8 patients with LV epicardial leads underwent extraction during the index hospitalization, while 6 patients with LV epicardial leads were managed medically during the hospital stay. Patients who had CRT devices without epicardial leads had complete removal of the device and all leads. SPSS 16 was used to perform the analysis.

Results: Baseline characteristics were similar among the groups with the exception of presence of valvular heart disease. There was no difference in mortality (P= 0.994) or re-infection rates (p=0.894) between the patients with LV epicardial leads versus those with CS leads. The patients with the LV epicardial leads had a higher need for ICU admission (p=0.007) and a trend towards having a higher rate of pericardial effusions.

Conclusion: After development of endocarditis or pocket infection, no statistically significant differences were seen in mortality or recurrent infection rates between patients with LV epicardial leads and those with CS leads.

Table 1. Multivariate analysis of variables between LV epicardial leads (LVE) and CS lead infections (CS)

| Baseline characteristics | LVE | CS | P-value |
|---------------------------------------|-------------|-------------|---------|
| Mean age (range) | 74.1 (55-8) | 68.9 (52-8) | 0.257 |
| Congestive Heart Failure | 7.3% | 14% | 0.841 |
| Coronary Artery Disease | 71.4% | 74% | 0.819 |
| Valvular Heart Disease | 12.7% | 4% | 0.020 |
| Diabetes Mellitus | 0% | 4% | 0.419 |
| Stroke | 44.2% | 52% | 0.870 |
| Diabetes Mellitus | 42.9% | 48% | 0.822 |
| Stroke | 0% | 8% | 0.058 |
| Pericardial Effusion | 7.3% | 14% | 0.020 |
| Chronic Renal Failure | 21.4% | 13% | 0.139 |
| Revascularization intervention | 21.4% | 13% | 0.778 |
| Valvular Stenosis | 28.6% | 13% | 0.179 |
| Current Atrial Fibrillation | 42.9% | 48% | 0.719 |
| Mean Device Function | 33.6% | 27.2% | 0.370 |
| Mean Duration (range) | 129 (21) | 111 (22) | 0.222 |
| Mean Time to Lead Extraction (days) | 7.8 (1) | 8.1 (2-28) | 0.228 |
| Diabetes Mellitus | 22.2% | 22.2% | 0.289 |
| Infection characteristics & treatment | 13.3% | 17% | P-value |
| Need for ICU stay | 50% | 18% | 0.007 |
| Revascularization | 0% | 2% | 0.402 |
| Diabetes | 7% | 17% | 0.418 |
| Pericardial Effusion | 7% | 0% | 0.028 |
| Bleeding | 40% | 10% | 0.110 |
| Acute Total Thrombosis | 21% | 44% | 0.122 |
| Re-infection (years) | 11.7% | 12% | 0.788 |
| Re-infection (months) | 62.9% | 69% | 0.722 |