

Infective endocarditis: a prospective registry of surgical lesions

Sara Ranchordas¹, Márcio Madeira¹, Paulo Oliveira¹, Marta Marques¹, Miguel Abecasis¹, Maria João Andrade¹, Miguel Sousa-Uva¹, and Neves José¹

¹Centro Hospitalar de Lisboa Ocidental EPE Hospital de Santa Cruz

April 16, 2024

Abstract

Background/aim of study: Infective endocarditis (IE) morbidity and mortality remains high. In most studies, endocarditis lesions found during surgery are not extensively described. The aim of this study was to register and describe endocarditis lesions found during surgery; find predictors of morbidity and mortality and correlate lesions found in echocardiogram vs. surgery. **Methods:** One hundred consecutive cases with endocarditis lesions seen during surgery were included between June 2014 and August 2018. Pathological lesions were coded prospectively using a coding form published by Pettersson et al. Other data were collected retrospectively. **Results:** Prosthetic endocarditis accounted for 23% of cases. Embolic events had occurred in 41% of cases, mainly to the brain (22%). The most frequent lesions found in echocardiogram were vegetations (77%). Vegetations and valve integrity anomalies were the main lesions described during surgery (70% and 71% respectively). Invasion was present in 39% of patients. In-hospital mortality was 9%. In univariable analysis, predictors of early mortality included chronic kidney disease ($p=0.005$), prosthetic endocarditis ($p<0.001$), Euroscore II ($p<0.001$) and valve integrity anomalies ($p=0.016$). Predictors of embolic events included aortic valve vegetations seen during surgery ($p=0.026$). Sensitivity and specificity of echocardiogram findings for identification of vegetations were 84% and 40%, for valve integrity anomalies 42% and 97% and for invasion 54% and 95% respectively. **Conclusions:** Diversity of lesions found in endocarditis preclude obtaining significant predictors of morbidity or mortality with small numbers of patients. Echocardiogram lacks sensitivity for valve integrity anomalies and invasion, but is highly specific.

Hosted file

endocarditis_ranchordasJCS.docx available at <https://authorea.com/users/411110/articles/712583-infective-endocarditis-a-prospective-registry-of-surgical-lesions>