Infective endocarditis in patients with solid organ transplantation. A nationwide study

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On behalf: GAMES

Topic(s):
Infective Endocarditis – Epidemiology, Prognosis, Outcome

Background. An increase in nosocomial and health care-related infective endocarditis (IE) has been described. Solid organ transplantation (SOT) implies immunosuppression and frequent health care contact. Our aim was to compare characteristics of patients with IE and SOT against those without SOT.

Methods. We used data from the Spanish Collaboration on Endocarditis obtained during the period 2008-2018.

Results. We identified 4794 cases of IE, 85 (1.8%) in SOT (56 kidney, 18 liver, 8 heart, 3 lung). Thirteen patients had other types of transplantation (bone marrow, hematopoietic precursors, and cornea) and were excluded from the analysis. Compared with patients without SOT, patients with SOT had a higher median age (69 vs. 61 years, p<0.001), more comorbidities (mean age-adjusted Charlson index 5.7±2.9 vs. 4.9±2.9, p=0.004), a lower prevalence of native valvular heart disease (29.4 vs. 45.4%, p=0.003), more in-hospital and healthcare-related IE (70.5% vs. 36.3%, p<0.001) and Staphylococcus etiology (57.7% vs. 39.7%, p=0.001). Regarding evolution, patients with SOT had more frequent kidney function worsening (47.1% vs. 34.6%, p=0.02), septic shock (25.9% vs. 12.1 %, p<0.001), sepsis (27.1% vs. 17.2%, p=0.02). Surgery indication (54.1% vs 66.3%, p=0.02) and surgery (32.9% vs. 46.3%, p=0.01) were less frequent in patients with SOT. We were unable to find significant differences in mortality: inhospital (30.6% vs. 25.6%, p=0.31), 1-year (38.8% vs. 31.9%, p=0.18).

Conclusion. IE in SOT patients has specific characteristics. Most of the cases are nosocomial and over 70% are hospital-or health care-related. Half have previously normal heart valves and almost 60% are due to Staphylococcus infections.

Figure. Kaplan Meier survival curves for patients with and without solid organ transplantation (SOT).
SOT: 56 kidney, 18 liver (2 combined with kidney), 8 heart, 3 lung.
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