



Long-term prognosis of 448 Infectious Endocarditis followed by an Endocarditis Team



Fabrice CAMOU^{1,2}, Carine GREIB², Irène MACHELART², Marina DIJOS³, Claire CORNOLLE³,
Laurent BARANDON⁴, Olivia PEUCHANT⁵, Gaëtane WIRTH², Nahéma ISSA^{1,2}

¹Intensive Care Unit, ²Infectious Disease Unit, ³Cardiology, ⁴Cardiac Surgery, ⁵Microbiology, Bordeaux University Hospital, FRANCE

Introduction

The management of Infective Endocarditis (IE) by an expert medico-surgical team through multidisciplinary consultation meetings is now recommended. While it seems clear that it can improve the short-term prognosis of patients, long-term data are still scarce.

Methods

All patients hospitalized between 2013 and 2017 in the three teaching hospitals of our center with an IE and treated by the multidisciplinary Endocarditis Team were followed prospectively at 1, 3, 6 and 12 months. The main objective was to determine the one-year mortality of the entire cohort.

Results

During the study, 493 patients had a certain or possible IE and the outcome at 1 year was known for 448 of them (4 lost to follow-up and 41 followed for less than 1 year): 254 had native valve IE (NVE, 57%) and 194 had prosthetic valve IE (PVE, 43%). The median age of IE patients was 69.3 years (155 patients were over 75 years old) and 329 (73%) were men. Healthcare associated IE (HAIE) accounted for 47% of cases. A microorganism was isolated in 92% of cases (*S. aureus* = 34%), 252 patients (56%) had an embolic events and 68 (15%) had heart failure. The median Charlson Comorbidity Index (CCI) was 5 : 6 among deceased patients and 4 among survivors. Two hundred and sixteen patients (48%) underwent surgery. The mortality rates at 1 month, 3 months, 6 months and 1 year were respectively 14.1%, 19.0%, 23.2% and 27.7%. Mortality at 1 year was significantly higher in case of HAIE (33% vs 23%), documented *S. aureus* IE (39% vs 24%), exclusive medical treatment (40% vs 15%) and heart failure (43% vs 25%) but comparable between NVE and PVE patients.

Conclusion

While the management of IE by an Endocarditis Team seems to improve the short-term prognosis of IE, one-year mortality remains high as patients are increasingly older, have severe comorbidities and HAIE incidence increases. Our study confirms that early prognostic factors remain in the long-term and that the prognosis is better in case of surgical non-*S. aureus* CAIE.

Table 1. Epidemiology

	All patients n=448	CAIE n=236 (53%)	HAIE n=212 (47%)	P
Patient characteristics, n (%)				
Male sex	329 (73)	178 (75)	151 (71)	NS
Median age, yr (IQR)	69.3 (57.3 - 77.7)	66.2 (53.3 - 75.5)	71.7 (62.9 - 78.8)	< 0.001
Previous IE	43 (10)	12 (5)	31 (15)	< 0.001
Median Charlson comorbidity index (IQR)	5 (3 - 6)	4 (2 - 6)	5 (3 - 7)	< 0.001
Echocardiographic findings, n (%)				
Native valve	254 (57)	161 (68)	93 (44)	< 0.001
Prosthetic valve	194 (43)	75 (32)	119 (56)	< 0.001
Mitral valve	146 (33)	59 (25)	87 (41)	< 0.001
Aortic valve	298 (67)	150 (64)	148 (70)	NS
Microbiology, n (%)				
Staphylococci	152 (34)	56 (24)	96 (45)	< 0.001
Streptococci	143 (32)	104 (44)	39 (18)	< 0.001
Enterococci	73 (16)	34 (14)	39 (18)	NS
No microorganism identified	35 (8)	20 (9)	15 (7)	NS
Outcome, n (%)				
Exclusive medical treatment	232 (52)	106 (45)	126 (59)	0.002
Surgery	216 (48)	130 (55)	86 (41)	0.002
30-Day mortality	63 (14)	27 (11)	36 (17)	NS
One-year mortality	124 (28)	55 (23)	69 (33)	0.03

NS: not significant

Figure 1. One year overall survival curve among NVE and PVE patients

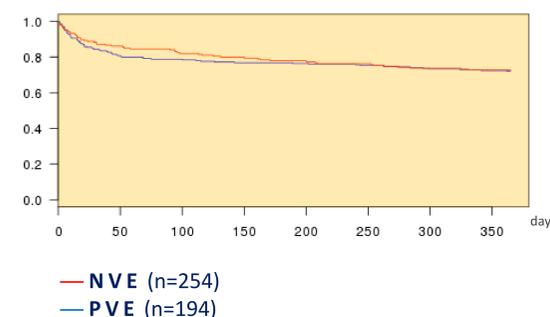


Figure 2. One year overall survival curve among CAIE and HAIE patients

