

SUPPLEMENTAL MATERIAL

Supplemental data for the following article:

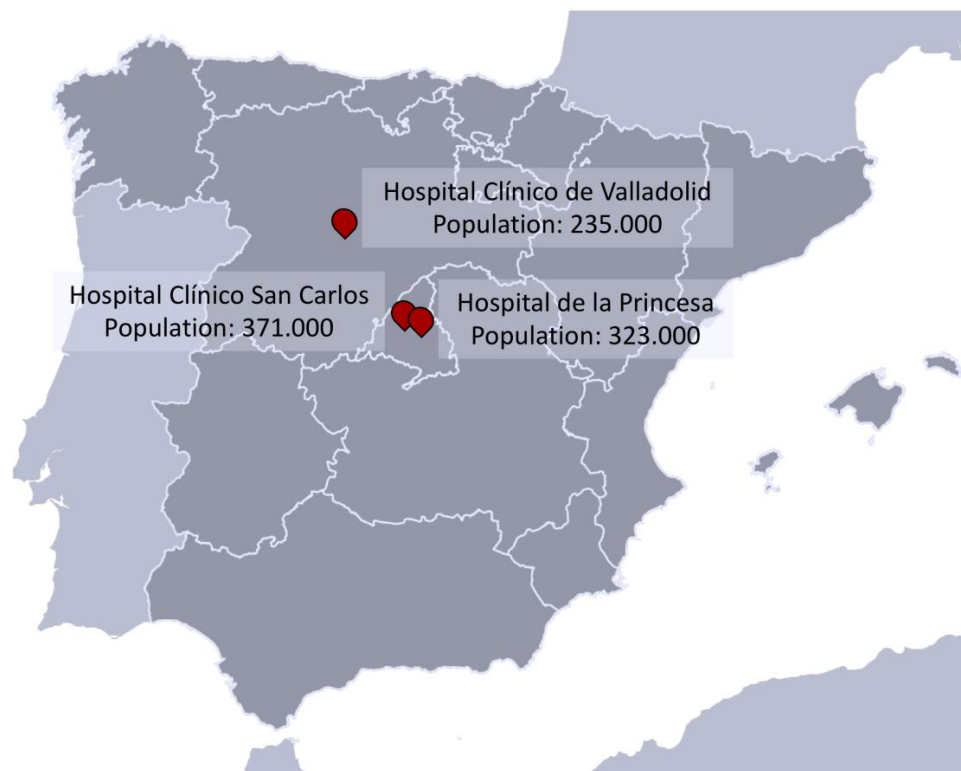
Title:

Contemporary epidemiology and outcomes in recurrent infective endocarditis: differences between reinfection and relapse.

Authors: Freitas-Ferraz A, et al.

Supplemental Figure 1

Geographical situation and population covered by the three tertiary care centers participating in the study.



Supplemental Table 1. Microbiology etiology.

	Group I: First episode of IE (n = 1227)	Group IIa: Reinfection (n = 87)	p Value
<i>Streptococcus bovis</i>	52 (4.3%)	2 (2.3%)	0.575
Viridans group streptococci	145 (11.9%)	9 (10.5%)	0.699
Enterococci	112 (9.2%)	10 (11.6%)	0.446
<i>Streptococci</i> (others)	74 (6.1%)	2 (2.3%)	0.229
<i>Staphylococcus aureus</i>	252 (20.6%)	11 (12.8%)	0.080
Coagulase-negative staphylococci	220 (18.0%)	14 (16.3%)	0.689
Gram-negative bacilli	40 (3.3%)	3 (3.5%)	0.758
Fungi	17 (1.4%)	1 (1.2%)	0.999
HACEK	5 (0.4%)	0 (0%)	0.999
Anaerobes	26 (2.1%)	2 (2.3%)	0.706
Polimicrobial	80 (6.5%)	10 (11.6%)	0.066
Others	38 (3.1%)	5 (5.8%)	0.198
Negative cultures	162 (13.3%)	17 (19.8%)	0.089

HACEK: *Haemophilus* spp, *Actinobacillus actinomycetemcomitans*, *Cardiobacterium hominis*, *Eikenella corrodens*, and *Kingella* spp. Values are expressed as n (%)

Supplemental Table 2. Microbiological profile of the first episode of infective endocarditis and reinfection according to the study period.

	First period (1996-2005)		P Value	Second period (2006-2015)		p Value
	Group I: First episode of IE (n = 453)	Group IIa: Reinfection (n = 37)		Group I: First episode of IE (n = 774)	Group IIa: Reinfection (n = 50)	
<i>Streptococcus bovis</i>	15 (3.3%)	0 (0%)	NS	37 (4.8%)	2 (4.1%)	NS
<i>Viridans group streptococci</i>	55 (12.1%)	6 (16.2%)	NS	90 (11.7%)	3 (6.1%)	NS
<i>Enterococci</i>	29 (6.4%)	3 (8.1%)	NS	83 (10.8%)	7 (14.3%)	NS
<i>Streptococci (others)</i>	32 (7.1%)	0 (0%)	NS	42 (5.5%)	2 (4.1%)	NS
<i>Staphylococcus aureus</i>	94 (20.8%)	6 (16.2%)	0.511	158 (20.5%)	5 (10.2%)	0.080
Coagulase-negative <i>staphylococci</i>	85 (18.8%)	7 (18.9%)	NS	135 (17.5%)	7 (14.3%)	NS
Gram-negative bacilli	18 (4.0%)	2 (5.4%)	NS	22 (2.9%)	1 (2.0%)	NS
Fungi	6 (1.3%)	0 (0%)	NS	12 (1.6%)	1 (2.0%)	NS
HACEK	3 (0.7%)	0 (0%)	NS	2 (0.3%)	0	NS
Anaerobes	10 (2.2%)	1 (2.7%)	NS	16 (2.1%)	1 (2.0%)	NS
Polimicrobial	32 (7.1%)	7 (18.9%)	0.01	47 (6.1%)	3 (6.1%)	NS
Others	16 (3.5%)	1 (2.7%)	0.999	22 (2.9%)	4 (8.2%)	0.064
Negative cultures	58 (12.8%)	4 (10.8%)	0.999	104 (13.5%)	13 (26.5%)	0.015

IE: Infective endocarditis

Supplemental Table 3. Echocardiographic findings.

	Group I: First episode of IE (n = 1227)	Group IIa: Reinfection (n = 87)	p Value
<i>Vegetations</i>			
Detection by echocardiography	1011 (85.0%)	58 (69.9%)	<0.001
Size (mm)	15.3 (10.1)	12.9 (10.4)	0.104
Prosthetic valve endocarditis	382 (31.3%)	60 (69.8%)	<0.001
Biological prosthesis	114 (9.3%)	11 (12.8%)	0.291
Mechanical prosthesis	272 (22.3%)	50 (58.1%)	<0.001
<i>Periannular complications</i>	287 (24.1%)	18 (21.7%)	0.616
Abscess	164 (13.8%)	9 (10.8%)	0.450
Pseudoaneurysm	151 (12.7%)	12 (14.5%)	0.641
Fistula	38 (3.2%)	6 (7.2%)	0.052
Prosthesis dehiscence *	113 (24.2%)	27 (43.6%)	0.001
Moderate-severe valve regurgitation	763 (64.1%)	46 (55.4%)	0.111

Values are expressed as mean (standard deviation) or n (%). Bold values are significant.

*Percentage over patients with prosthesis.

Supplemental Table 4. Description of the valves/devices involved in the first and subsequent relapsed infective endocarditis episodes.

Case number	Affected valve		
	First IE episode	Surgical treatment	Relapse
1	Implantable cardioverter-defibrillator	Yes	Implantable cardioverter-defibrillator
2	Aortic bioprosthetic valve	No	Aortic bioprosthetic valve
3	Native mitral valve	Yes	Mitral mechanical valve
4	Native aortic valve	Yes	Aortic mechanical valve
5	Mitral mechanical valve	No	Mitral mechanical valve
6	Aortic mechanical valve	Yes	Aortic mechanical valve and mitral mechanical valve
7	Native mitral valve and aortic bioprosthetic valve	Yes	Mitral mechanical valve
8	Native aortic valve	No	Native aortic valve
9	Mitral mechanical valve	No	Mitral mechanical valve
10	Aortic mechanical valve	No	Aortic mechanical valve and native mitral valve
11	Native aortic valve	Yes	Aortic mechanical valve