

The results of Cox regression analysis are shown in the table. Additionally we analyzed the factors related with survival in men and women separately. They were comparable in both groups except the presence of CAD that had borderline impact only on 10 yrs survival in men.

Conclusion: The survival after aortic valve replacement is much worse in men. The reason is unknown but it is not explained by the presence of the coronary artery disease.

Table – Results

Follow up	Deaths	Parameters i	Odds ratio	p=
3 yrs	64 pts	Age	1,06 (1,03-1,09)	0,0001
	13 women	Male gender	3,7 (2,0-6,9)	0,001
	51 men	EF	1,006 (1,001-1,011)	0,03
5 yrs	100 pts	Age	1,079 (1,04-1,09)	0,0001
		Male gender	3,0 (1,8-4,8)	0,0001
	23 women	EF	1,007 (1,002-1,01)	0,004
7 yrs	77 men	MAG	0,98 (0,97-0,99)	0,0001
	140 pts	Age	1,06 (1,04-1,08)	0,0001
		Male gender	2,4 (1,6-1,08)	0,0001
10 yrs	37 women	MAG	0,99 (0,98-0,995)	0,09
	103 men	LVMI	1,1 (1,0-1,005)	0,0001
	199 pts	Age	1,05 (1,035-1,07)	0,09
		Male gender	1,8 (1,4-2,6)	0,0001
	62 women	MAG	0,99 (0,86-0,997)	0,0001
	137 men	CAD	1,3 (0,96-1,8)	0,086

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Risk scores versus pragmatic clinical assessment to predict operative risk in aortic valve replacement for aortic stenosis

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Background: Preoperative risk assessment of cardiac surgery is based on international validated scores. However their additional value above simple clinical assessment (CA) remains controversial. The aim of this study was to compare CA by cardiologists with the 5 most commonly used scores (additive and logistic EuroSCORE, EuroSCORE II, STS-score, Ambler-score) to predict perioperative mortality in patients undergoing aortic valve replacement for aortic stenosis.

Methods: From October 2009 to November 2011, 314 consecutive patients (73±9,7 years; 29% octogenarians) were included. A surgical coronary revascularization was associated to aortic valve replacement in 22%. According to the expected mortality by CA, patients were split in 4 groups: “low” mortality risk [0-3.9%], “intermediate” [4-6.9%], “high” [7-9.9%] and “very high” ≥10%. The 5 scores were calculated for all the patients.

Results: Observed total operative mortality was 5,7%. The distribution of predicted mortality in the 4 groups was highly different according to the method. The positive predictive value (PPV) of each method was calculated for the 21% most at risk patients (corresponding to the 64 patients ranked in “high” and “very high” mortality risk groups by CA) resulting in PPV=17.2% for EuroSCORE II, 14.1% for CA and STS-score, 10.9% for additive EuroSCORE and logistic EuroSCORE and 10% for Ambler score. Predictive values of “low” and “intermediate” mortality risks were not significantly different depending on the methods (PPV between 2.8 and 4.4%).

Conclusion: pragmatic CA remains useful to predict operative risk in patients with surgical aortic valve replacement and to balance the different international scores.