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MORTALITY PREDICTORS IN URGENT ANEURYSMS: HEMATOLOGIC AND RENAL (DYS)FUNTION

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INTRODUCTION

It´s known that mortality in elective and urgent aneurysms is related to patient concomitant comorbidities*. Chronic coronary, lung and renal disease are survival predictors, as is hemodynamic stability at admission. This study aims the mortality analysis in urgent infra-renal aortic aneurysms. We evaluate the perioperative renal and hematologic function as predictors of mortality and its relation with surgical outcomes, comparing the results of endovascular repair (EVAR) to open repair (OR).

MATERIALS AND METHODS

Retrospective,
Infra-renal ruptured aneurysms
OR vs EVAR
January 2012 – September 2015

Analysis

Mortality

a) History of CRD
b) Renal impairment after surgery
c) Hemodynamic stability (admission)
d) Hemodynamic control (surgical)

Sample

OR: 31 patients
EVAR: 7 patients
91% male
Mean age: 73,9 ± 10,4 y (máx 94)
AAA: 77,4 ± 15,8 mm (máx 125)

Comorbidities	Total
HT	64,9%
Dyslipidemia	37,8%
Diabetes	16,2%
CRD	15,5%
CID	56,8%
CPOD	21,6%

Survival in patients with CRD

			CRD		
			yes	no	*p*
Mortality	OR	yes	4	13	0,05
		no	0	14	
	EVAR	yes	0	1	0.62
		no	1	4	

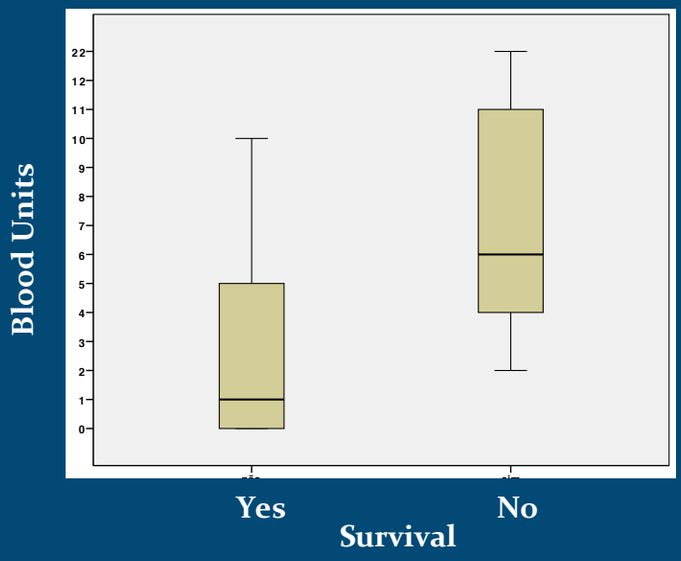
Serum creatinine variation (mg/dl)

Survival	Serum creat.	*p*
Yes	0,34 ± 0,3	0.024
No	0,55 ± 0,53	

Creat Δ - OR vs EVAR: 0,025 vs 0,005

Survival and blood/plasma needs

Survival	Blood Units	*p*	Plasma Units	*p*
Yes	2,63 ± 3,1	0.002	1,58 ± 2,4	0.121
No	7,44 ± 5		3,06 ± 3,1	



Survival and relation to hemodynamic stability at admission and intra-operative

	Admission			Operative room		
Mortality	yes	no	*p*	yes	no	*p*
Yes	5	13	0.181	5	13	0.181
No	2	17		2	17	

CONCLUSION

The physiological stability is a crucial factor for perioperative mortality in aneurysmal emergencies. Despite the surprising lack of association of hemodynamic instability with mortality, there is a notorious survival fall related to blood loss, being even higher in renal dysfunction.

*Beck AW, Goodney PP, .Nolan BW *et al.* Predicting 1-year mortality after elective abdominal aortic aneurysm repair. J Vasc Surg 2009 Apr 49(4):843-4.