

PERCUTANEOUS ACCESS FOR EVAR: COST-EFFECTIVENESS ANALYSIS

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INTRODUCTION

Much has been said about the safety and effectiveness of percutaneous access for EVAR. Recent studies that includes the PEVAR trial* showed low hemorrhagic and access complication rates, lower operative time and faster hospital discharge. Despite costs associated to percutaneous devices, it seems to even reduce total treatment cost. This study aims at the cost-effectiveness analysis of percutaneous access for EVAR (pEVAR) compared to the open femoral access control group (oEVAR).

MATERIALS AND METHODS

Retrospective, unicentric
PEVAR vs oEVAR

January 2013 – September 2015

Analysis

1. Intervention costs

- surgical time
- consumed material
- type of anesthesia

2. Total treatment costs

- intervention
- ICU
- hospital length of stay

Sample

pEVAR: 8 patients ($\pm 72y$)

oEVAR: 24 patients ($\pm 76y$)

91% male

Mean age: $75,2 \pm 6,7 y$

PAD: Proglide®

Comorbidities

	Total	pEVAR	oEVAR	p
Diabetes	21,9%	12,5%	33,3%	0,46
Dyslipidemia	56%	37,5%	62,5%	0,22
HT	75%	75%	75%	0,69
CPOD	28,1%	25%	29,1%	0,82
CRD	25%	12,5%	29,2%	0,35
CID	28,1%	0%	37,5%	0,04

Surgical time (minutes)

Femoral access	n	mean	Std. Dev	p
pEVAR	8	135,38	32,035	<0.001
oEVAR	24	196,92	38,866	

Hospital stay (days)

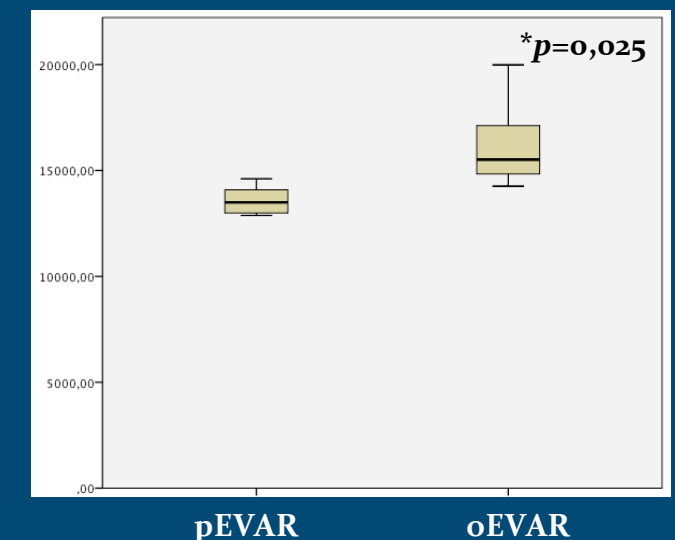
	UCI		Total	
	mean	std. dev	mean	std. dev
pEVAR	0	0	2,63	1,3
oEVAR	0,25	0,44	6,38	2,4
p	0,124		< 0.001	

Anesthesia and Surgical time (minutes)

	pEVAR	oEVAR	Time	Std Dev.	p
Local	7	0	128,86	11,42	<0.001
Epidural	1	22	193,61	8,14	
General	0	2			

Intervention and total treatment costs (euros)

	Intervention	Total
pEVAR	12 399 \pm 452	13 578 \pm 654
oEVAR	12 931 \pm 948	16 038 \pm 1632
	p = 0,049	p = 0,025



CONCLUSION

The percutaneous access for EVAR is a safe and effective technic compared to surgical femoral approach. The percutaneous access is cheaper than surgical femoral exposure in the cost-effectiveness analysis. Mid and long term cost analysis are necessary to demonstrate if this results are prolonged in time.