

CONTROVERSES ET ACTUALITÉS EN CHIRURGIE VASCULAIRE  
CONTROVERSIES & UPDATES  
IN VASCULAR SURGERY



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MARRIOTT RIVE GAUCHE & CONFERENCE CENTER PARIS, FRANCE

# Endoscopic Venous Harvesting

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[www.cacvs.org](http://www.cacvs.org)



# Disclosure

- Consulting and speaker fees for Maquet



Traditional  
Vessel  
Harvesting



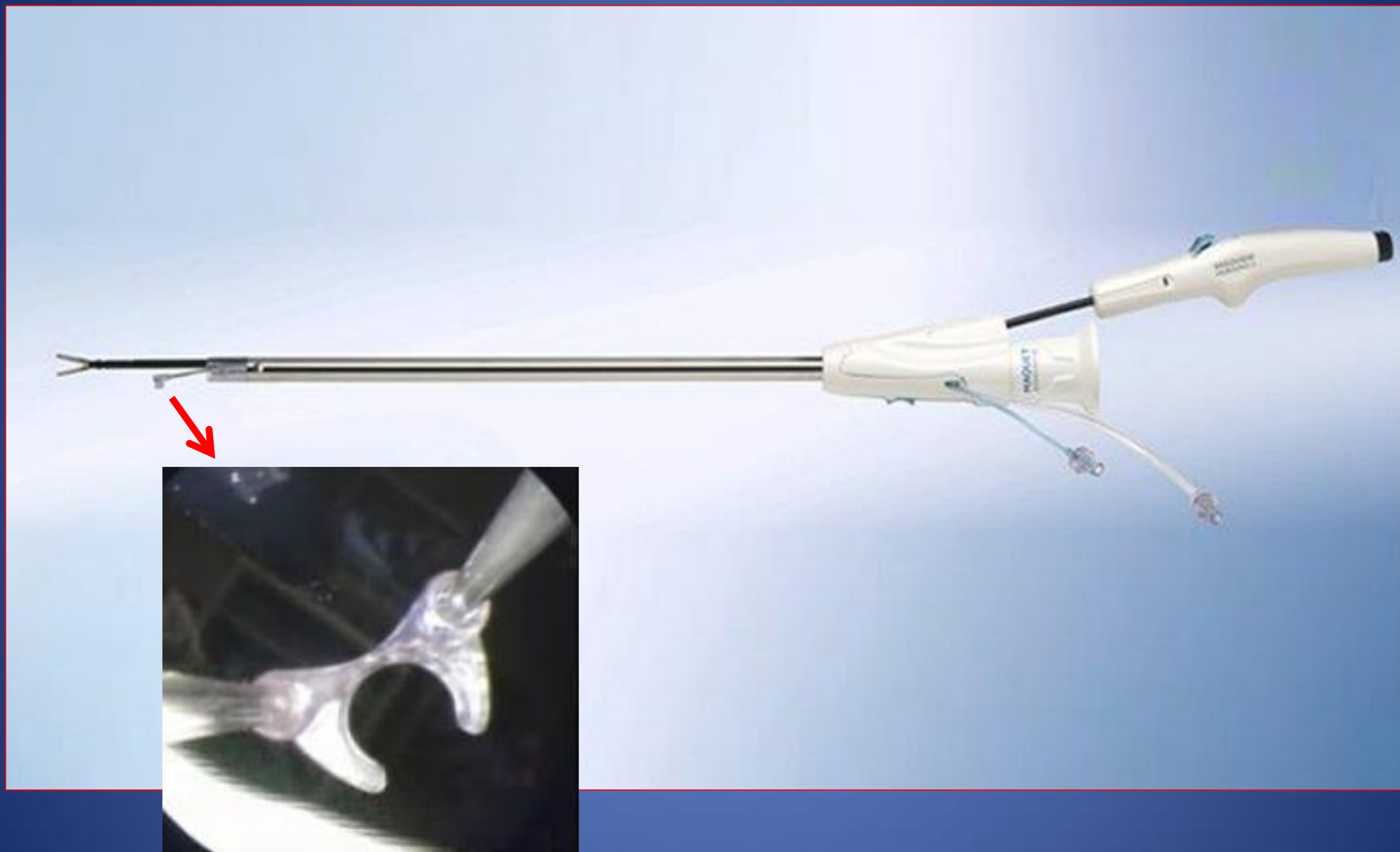
Endoscopic  
Vessel  
Harvesting







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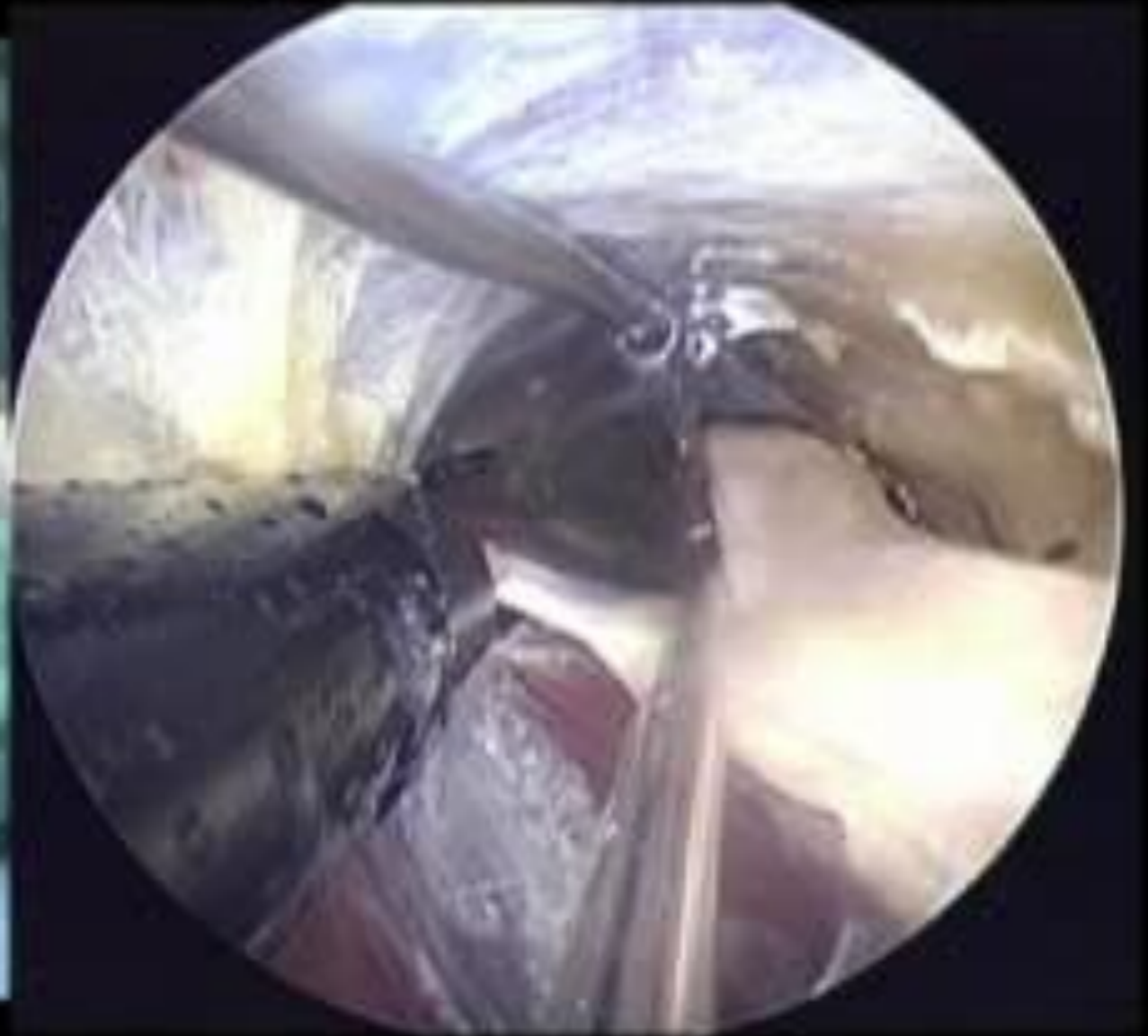




**JP Becquemin** – 40<sup>th</sup> VEITH Symposium - 19-23 November 2013











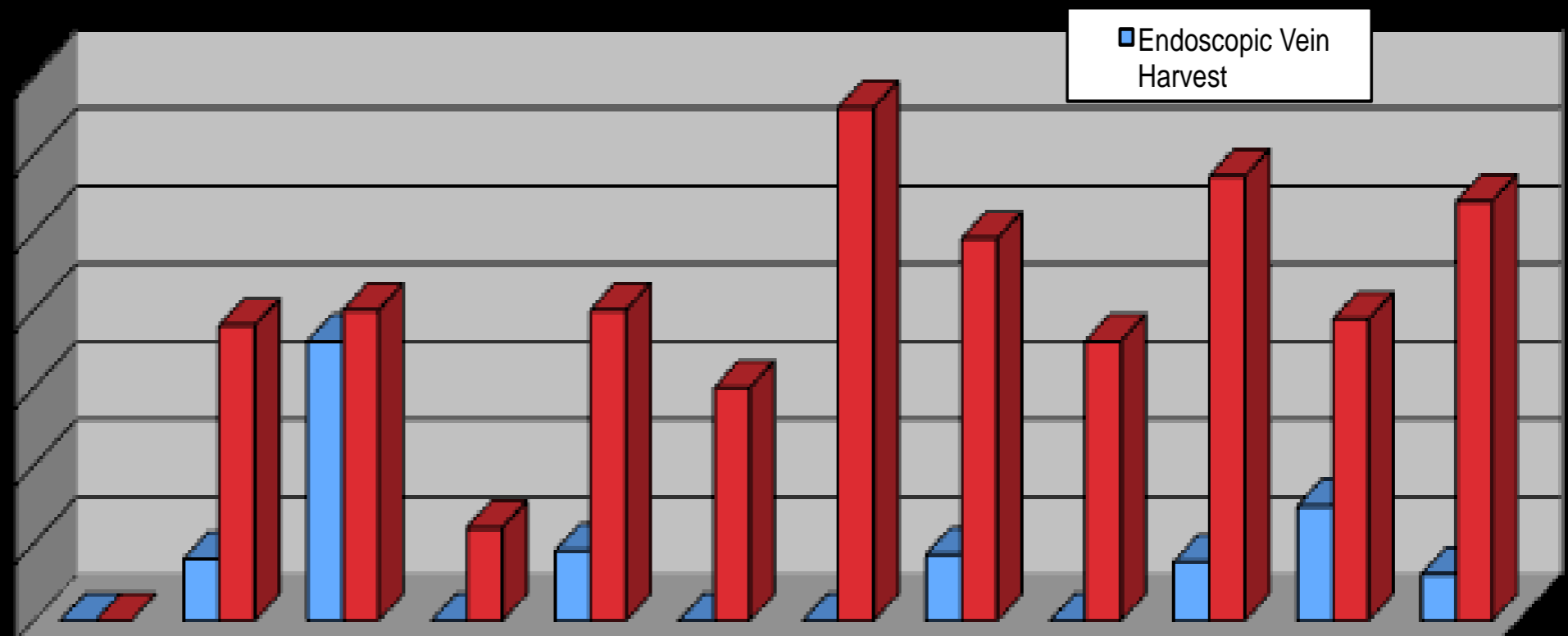


# Cardiac Surgery

- 1 ) No difference in term of  
Patency, Complication, Mortality  
SV damages
- 2) Significant reduction of wound  
complication

Markar et al *Interact Cardiovasc Thorac Surg* 2009

# Healing Complications EVH vs Open Harvest



# Vascular Surgery

- 23 Series
- 14 Cohorts series
- 9 Comparative series



# Results

Authors	Patency	limb salvage	Wound compl	LOS
Gazoni JVS 2006	equal	equal	equal	equal
Illig Ann Vasc Surg 2001	equal	equal	less	less
Johnson JAmCS 1998	equal	equal	less	less
Julliard Ann Vasc Surg 2011	less	equal	equal	equal
Manis Int J Angiol 2006	equal	equal	less	equal
Pullat JVS 2006	prim less, sec equal	equal	equal	na
Robbins Am J Surg 1998	equal	equal	equal	less
Suggs JVS 2001	equal	equal	equal	na

# Infra-inguinal Bypass

n = 295

230 Saphenous Venous

65 prosthetic

30 fem – fem

200 fem- pop / tibial

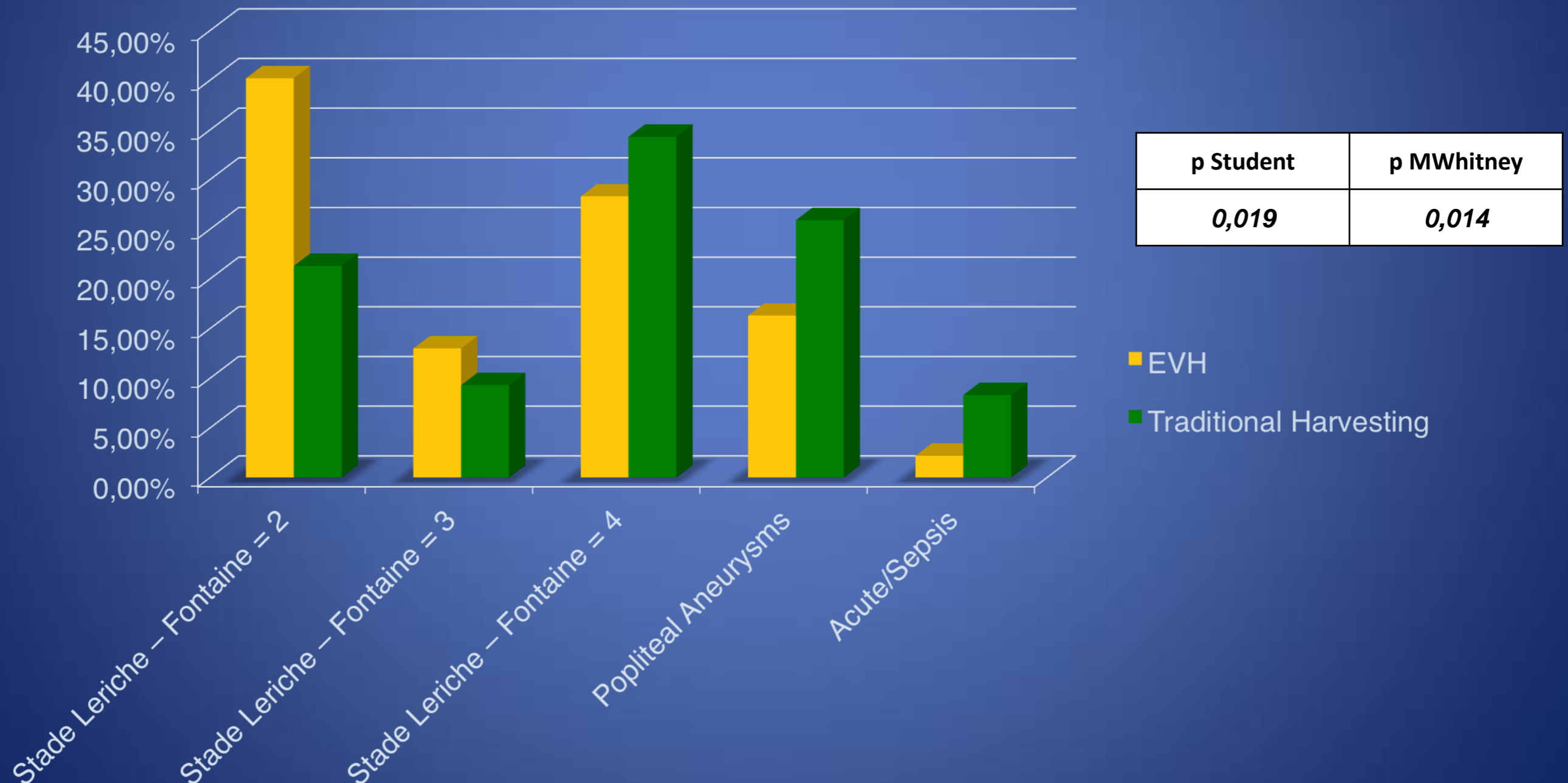
92 EVH ( 2011 – 2012)

108 Traditional Harvesting (2008 – 2011)

# Comparison of EVH and TVH Demographics

Only reversed vein Interfemoral excluded	EVH (n= 92)		Traditional harvesting (n=108)			
Variables	n	Mean	n	Mean	p Student	p MWhitney
Age (mean)	92	66,99	108	65,43	0,416	0,979
Variables	n	%	n	%	p Student	p MWhitney
Sex = M	75	84.3%	91	81.5%		
Tobacco	59	64.1%	59	54.6%		
Diabetis	23	25,0%	39	36,1%		
Hyperlipidemia	63	68,5%	54	50,0%	<b>0,008</b>	<b>0,010</b>
Hypertension	72	78,3%	72	66,7%		
Myocardial Infarction	26	28,3%	38	35,2%		
Myocardial Insufficiency	10	10,9%	10	9,3%	0,705	0,814
COPD	15	16,3%	15	14,0%		
Renal Insufficiency (Moderate)	7	7,6%	4	3,7%		
Renal Insufficiency (Severe)	2	2,2%	1	0,9%		
Dialyses	2	2,2%	2	1,9%		

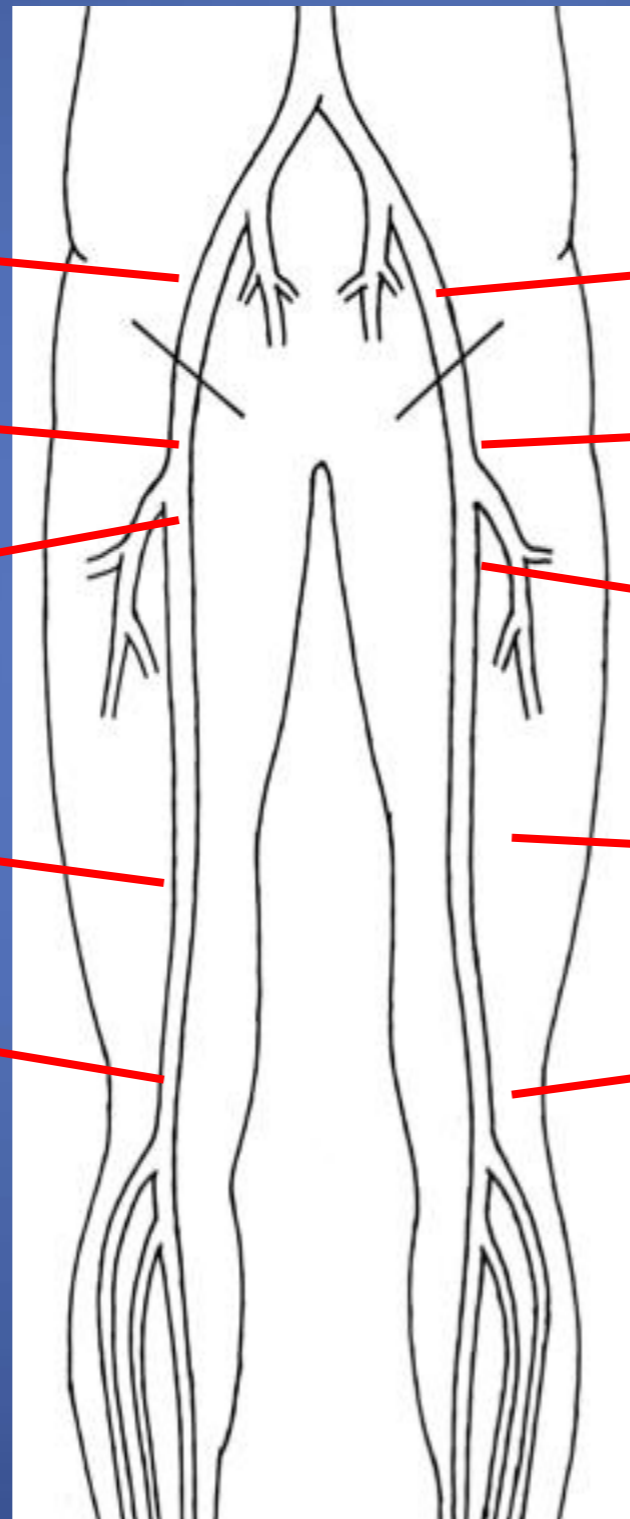
# Comparison of EVH and TVH Symptoms



# Proximal Anastomosis Sites

**EVH n (%)**

**Traditional harv. n (%)**



0 (0%)

1 (0,9%)

50 (54,3%)

40 (37,0%)

24 (26,1%)

61 (56.5%)

0 (0%)

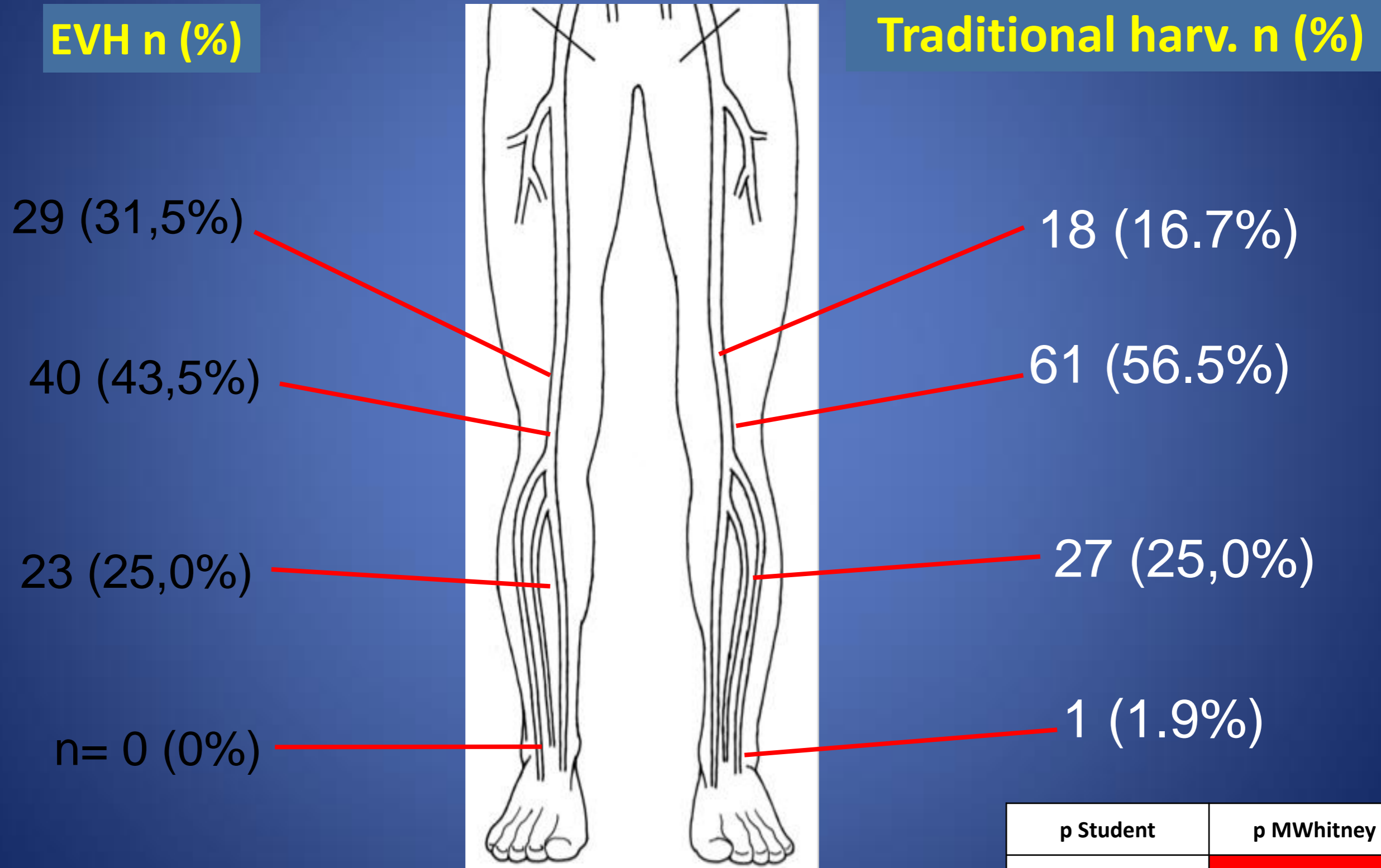
27 (25,0%)

7 (7,6%)

1 (1.9%)

p Student	p MWhitney
0,071	<b>0,047</b>

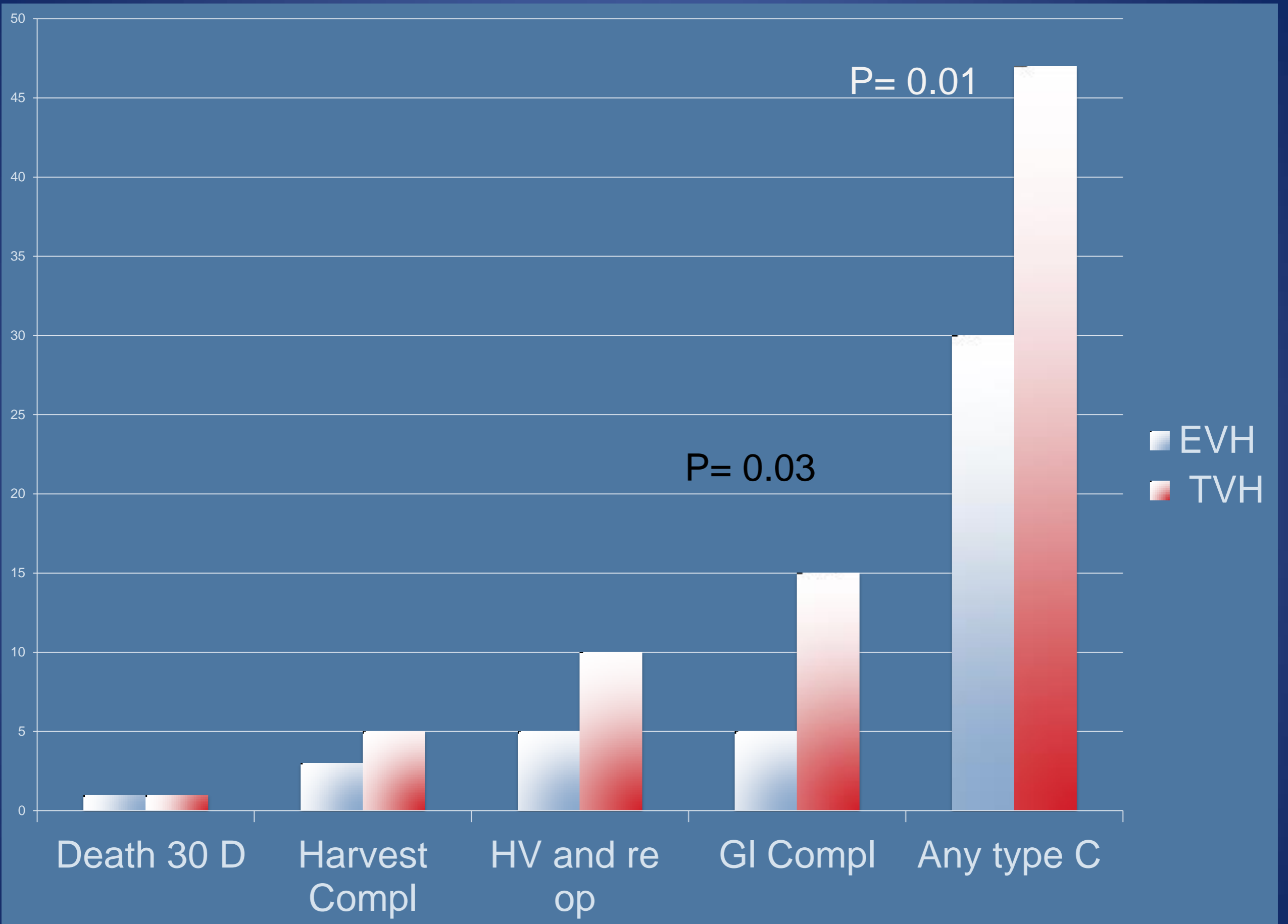
# Distal Anastomosis sites



p Student	p MWhitney
0,071	<b>0,047</b>

# Comparison of EVH and TVH Operative time

	<b>EVH (n= 92)</b>				<b>TVH (n=108)</b>					
<b>Variables</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>p Student</b>	<b>p MWhitney</b>
<b>Operative Time (Mins)</b>	83	221,73	75,61	200	95	217,48	90,93	180	0,737	0,398

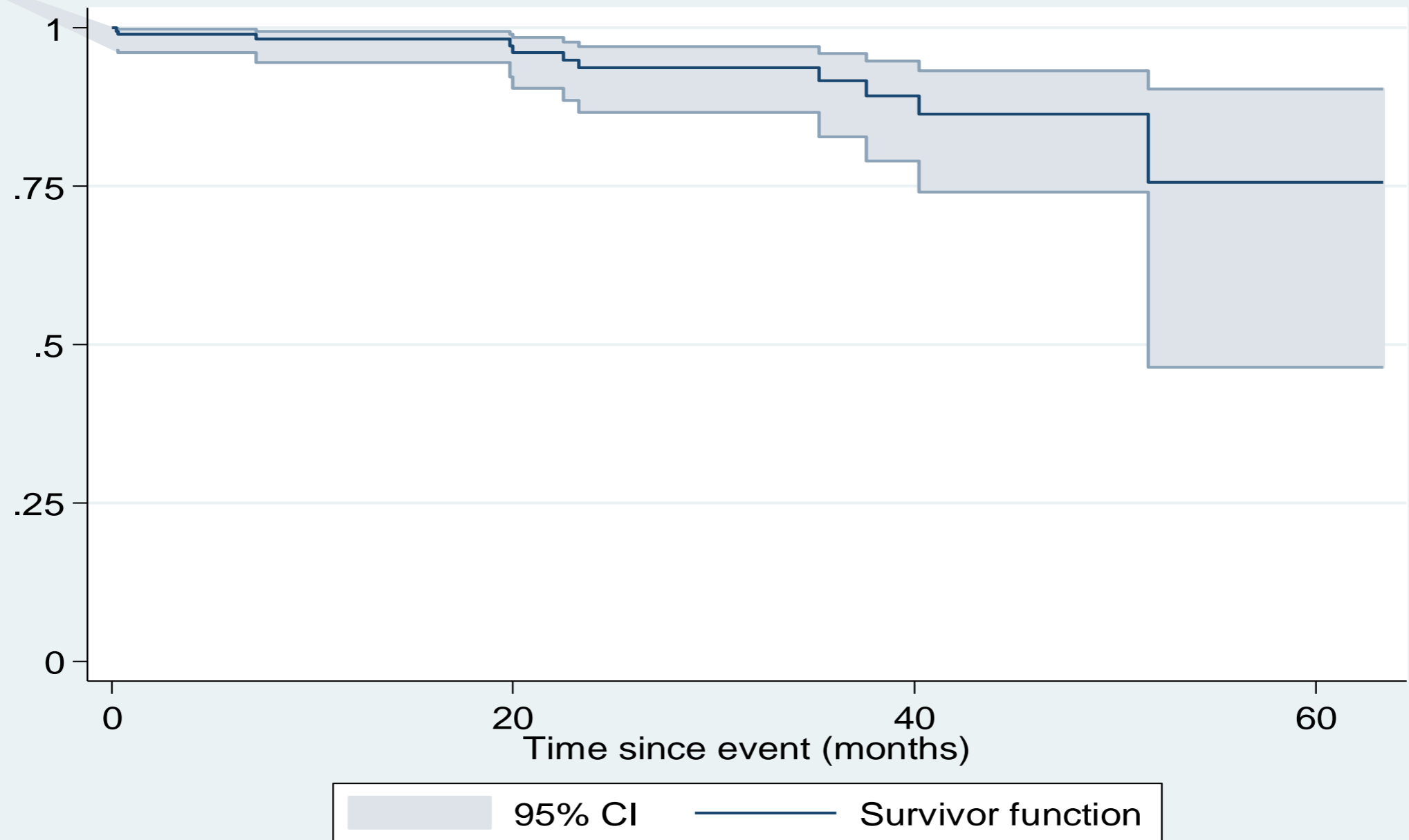




# Comparison of EVH and TVH LOS

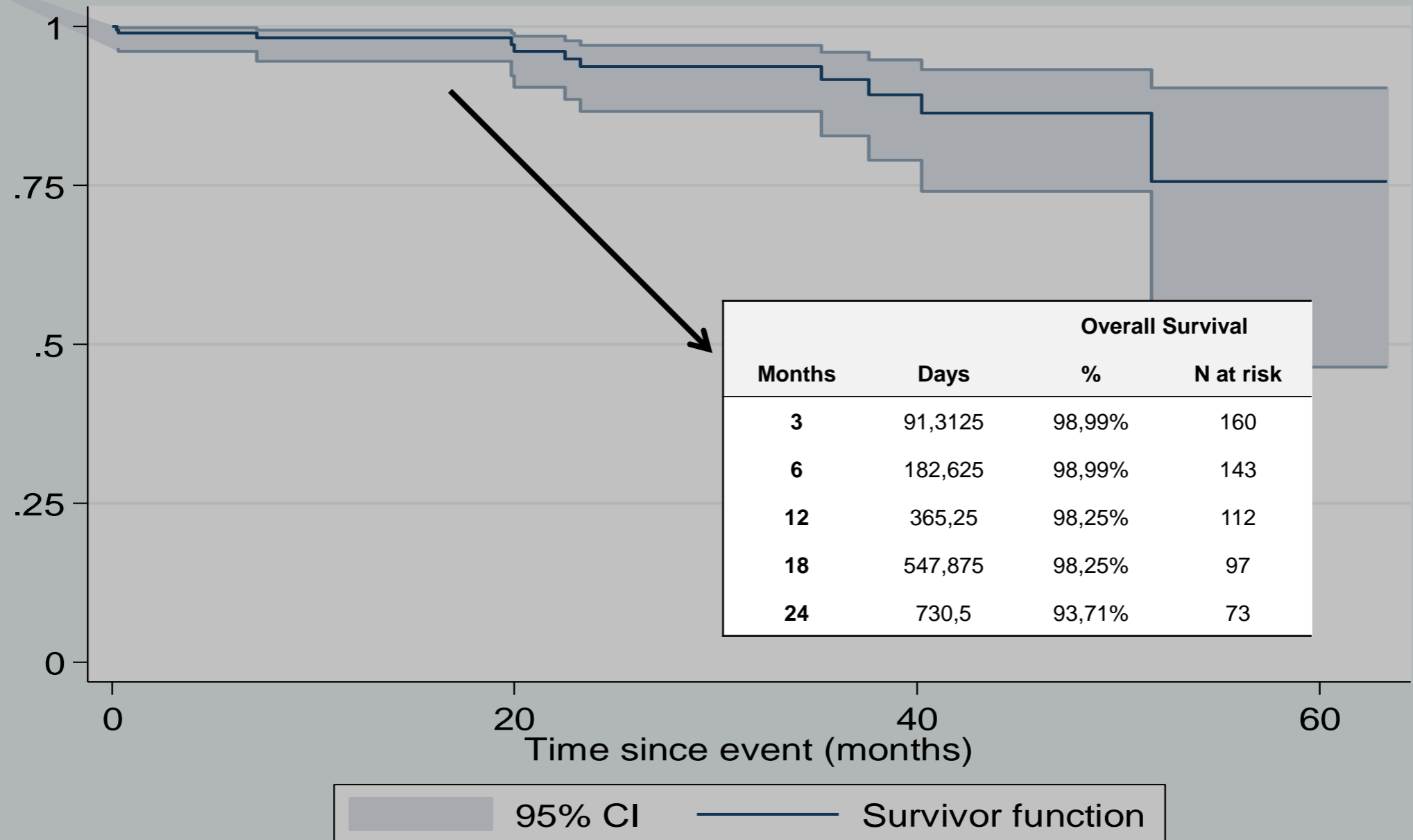
	EVH (n= 92)				THV (n=108)					
Variables	N	Mean	SD	Median	N	Mean	SD	Median	p Student	p MWhitney
<b>LOS (Days)</b>	91	7,65	4,07	7	100	10,82	7,30	8	<b>&lt;0,001</b>	<b>&lt;0,001</b>

# Comparison of EVH and TVH Survival

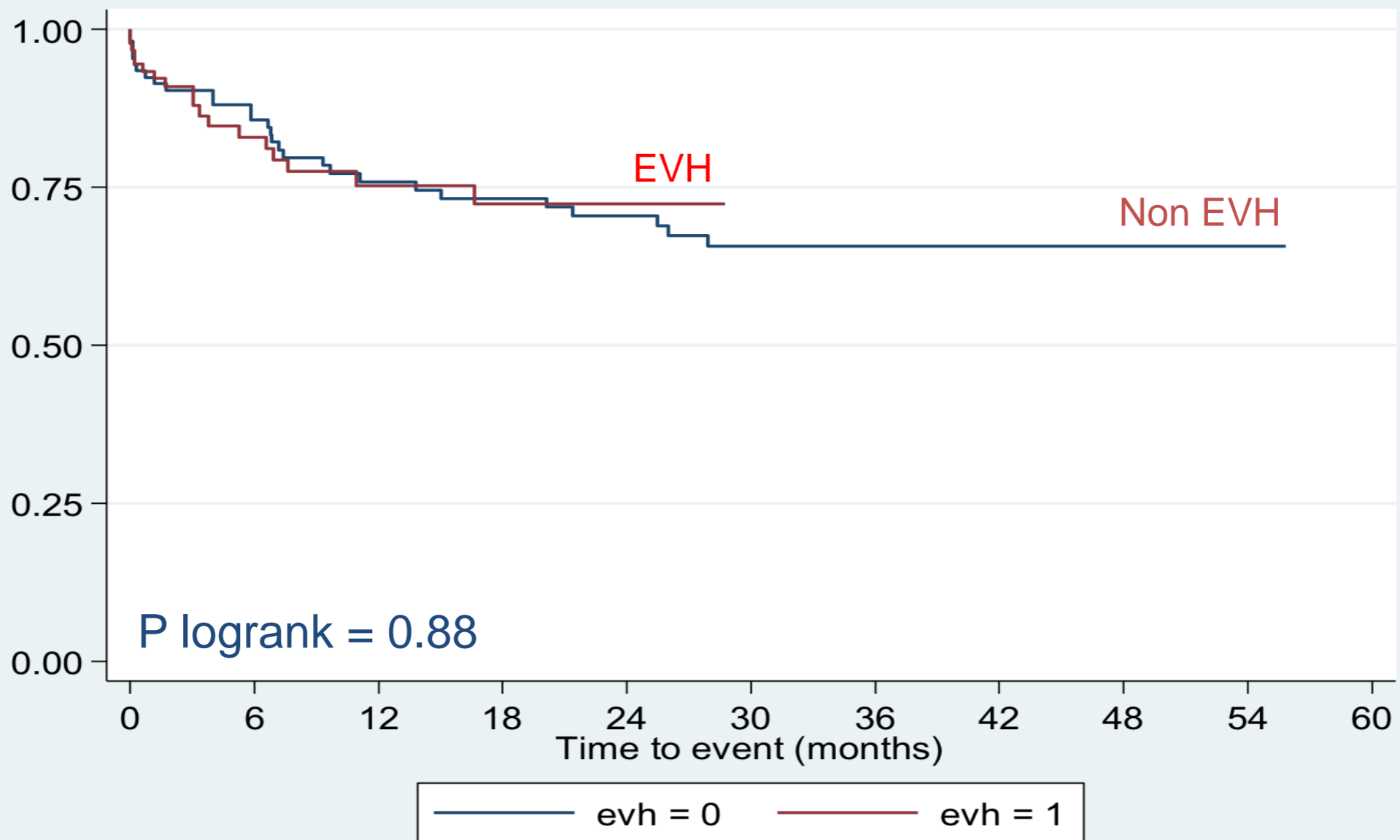


# Comparison of EVH and TVH Survival

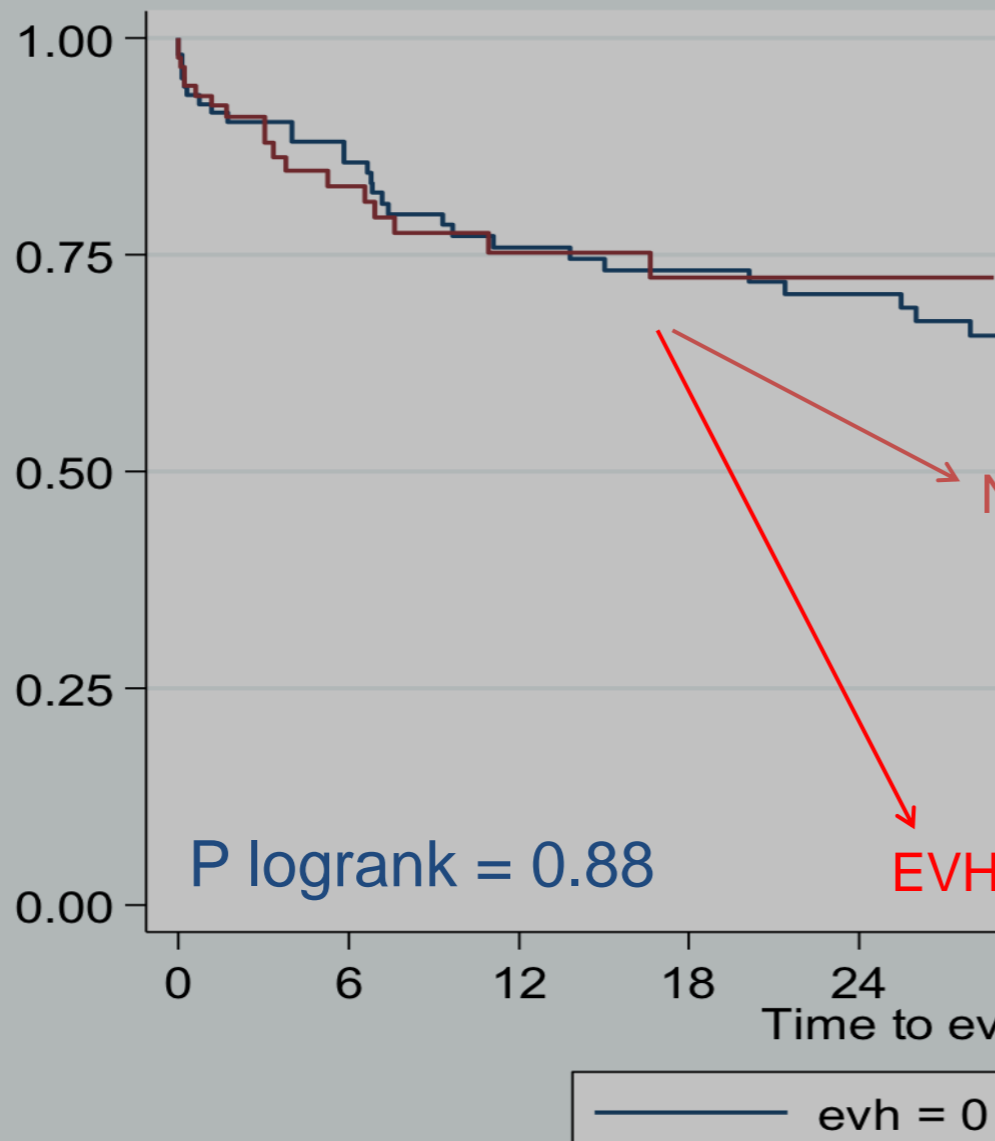
## Kaplan – Maier Overall Survival



# Comparison of EVH and TVH Patency



# Comparison of EVG and TVH Patency



Months	Days	Overall Survival		Event-Free Survival	
		%	N at risk	%	N at risk
3	91,3125	99,07%	93	91,10%	82
6	182,625	99,07%	86	86,46%	75
12	365,25	97,84%	74	75,39%	58
18	547,875	97,84%	69	72,74%	55
24	730,5	94,88%	62	67,22%	46

Months	Days	Overall Survival		Event-Free Survival	
		%	N at risk	%	N at risk
3	91,3125	98,91%	68	91,89%	61
6	182,625	98,91%	58	83,81%	48
12	365,25	98,91%	40	76,06%	33
18	547,875	98,91%	29	73,13%	24
24	730,5	90,83%	12	73,13%	12

# EVH

Is a less invasive technique with  
less wound complication

and shorter LOS

WOW!!!  
THAT WILL  
COMPLETELY  
CHANGE THE

RCT

Endpoint : comfort , QOL

Training

THE WHOLE WORLD IS EXCITED ABOUT  
GOOGLES LATEST INVENTION

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