

IS MINIMALLY INVASIVE ESOPHAGECTOMY ONCOLOGICALLY SAFE?

RESULTS OF A CASE-CONTROL STUDY

ARAL, MARISA¹; SANTOS-SOUSA, HUGO¹

¹ GENERAL SURGERY DEPARTMENT, CENTRO HOSPITALAR DE SÃO JOÃO, UNIVERSITY OF PORTO MEDICAL SCHOOL, PORTO, PORTUGAL.

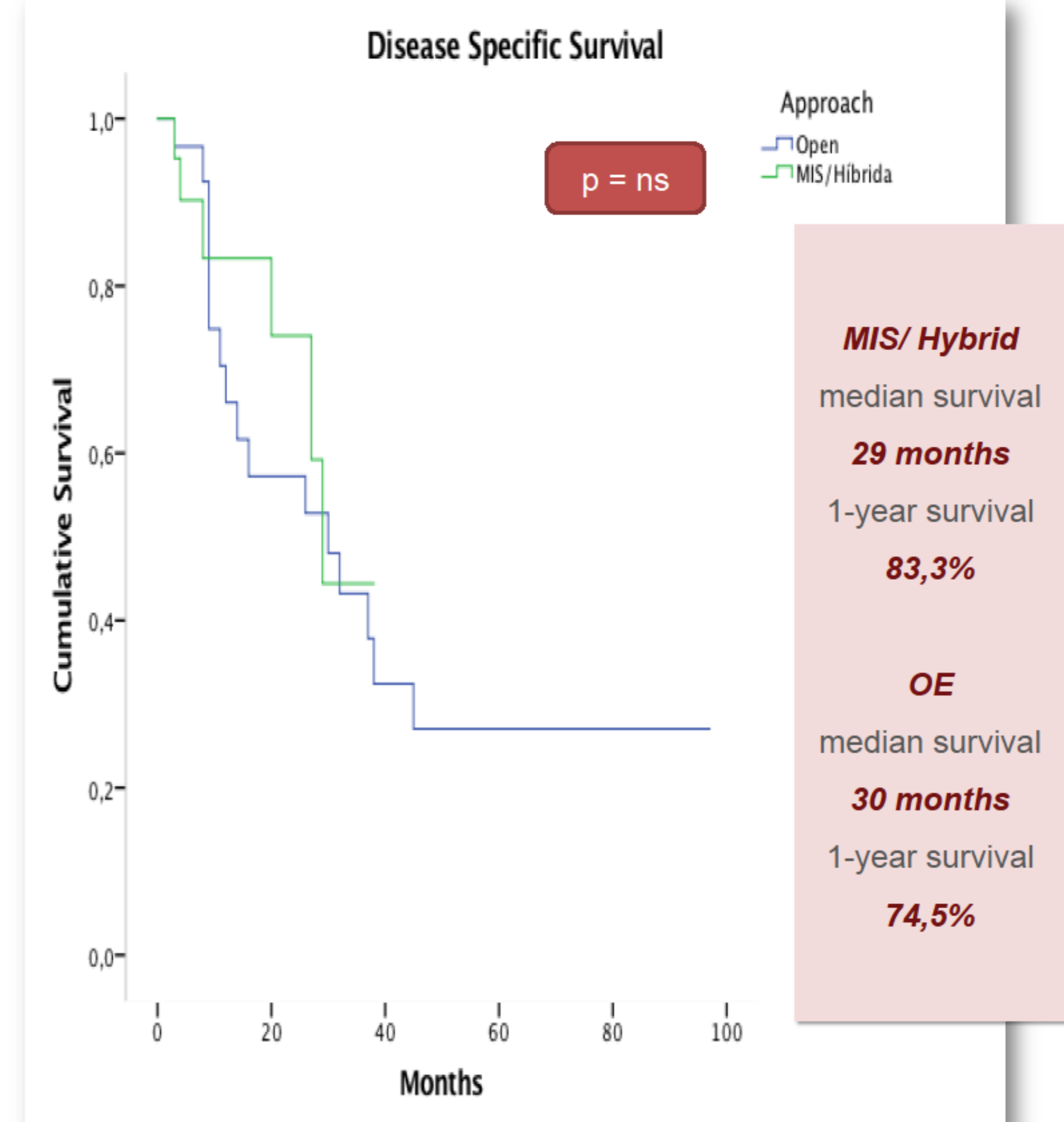
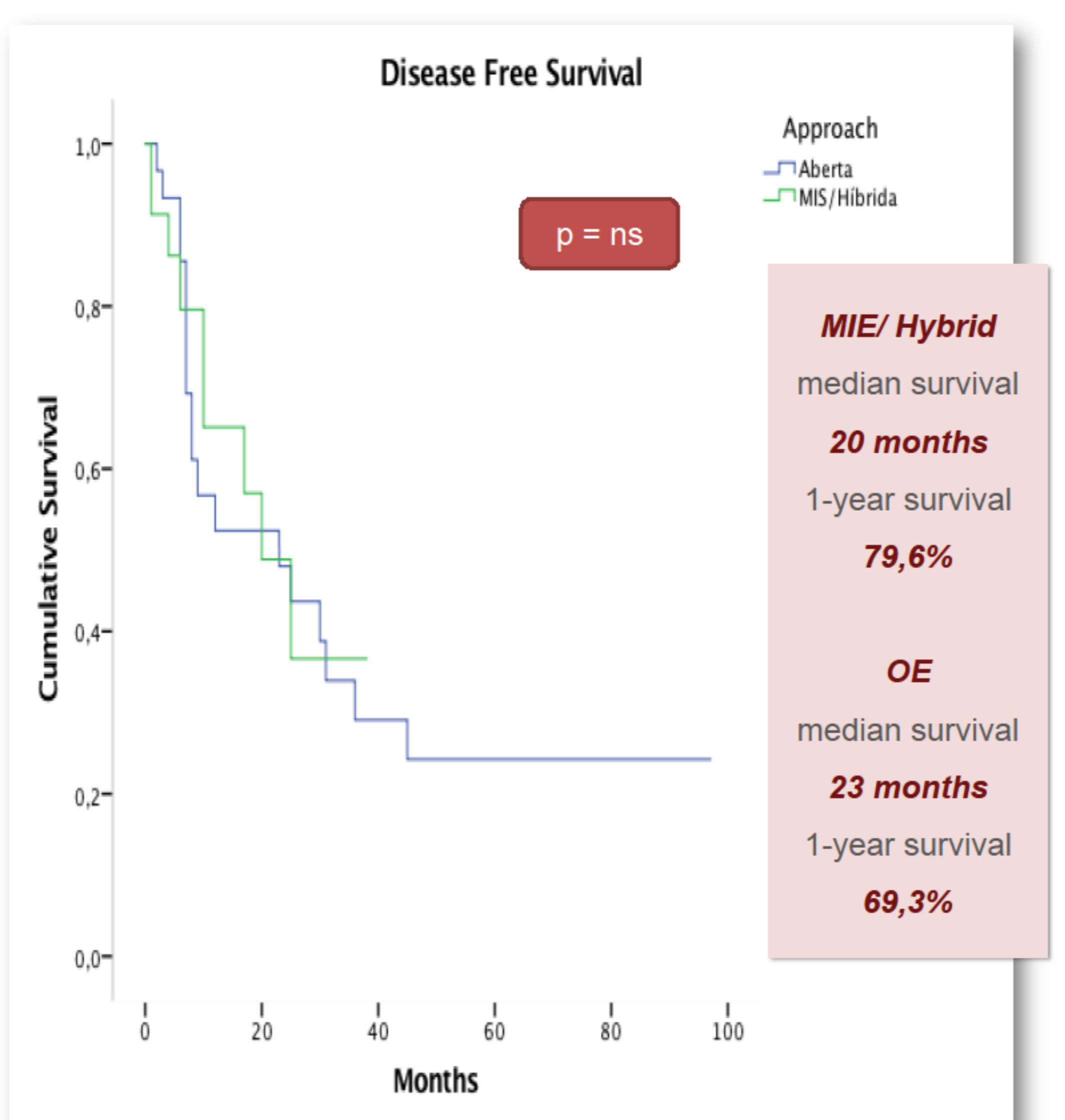
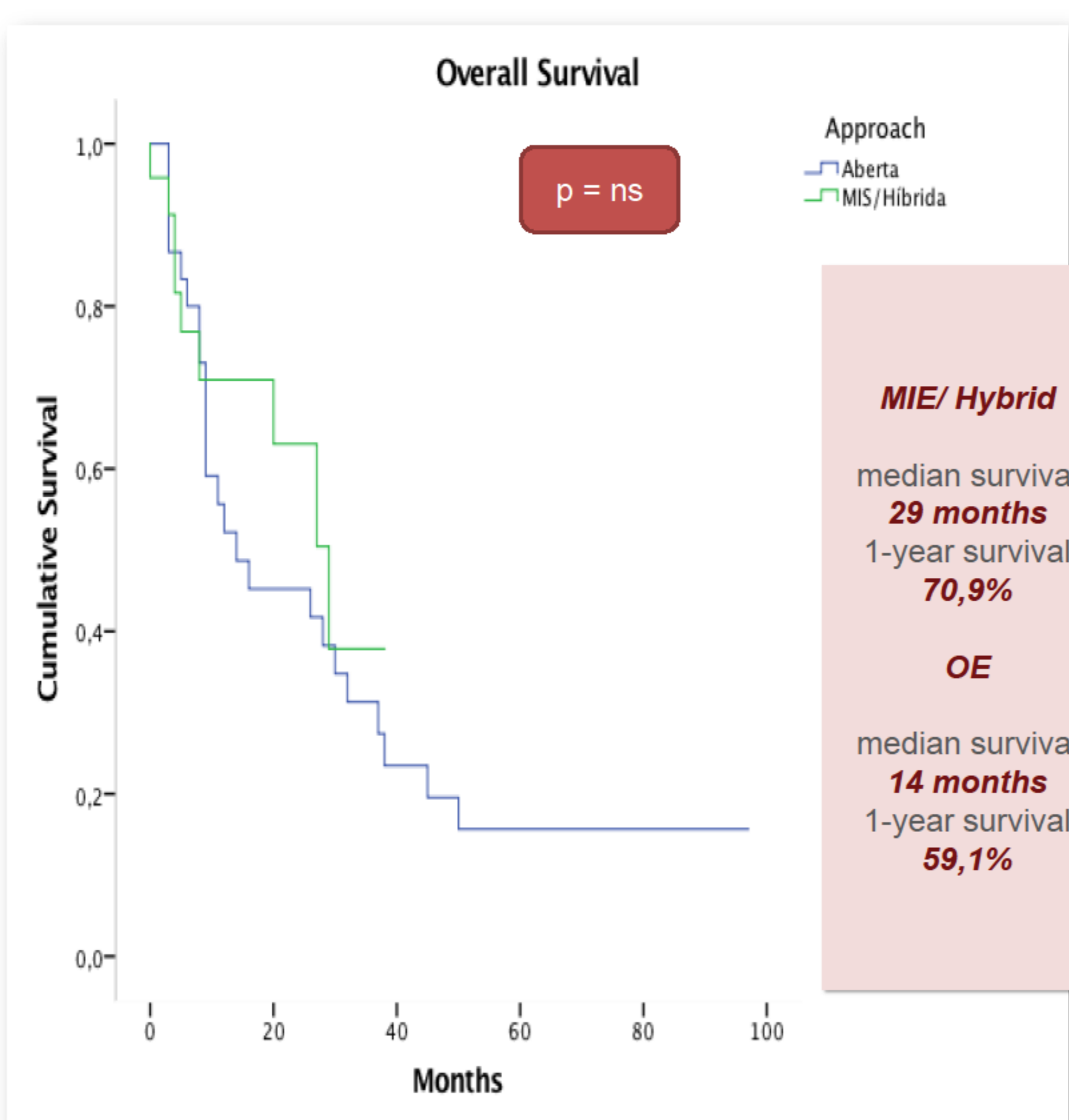
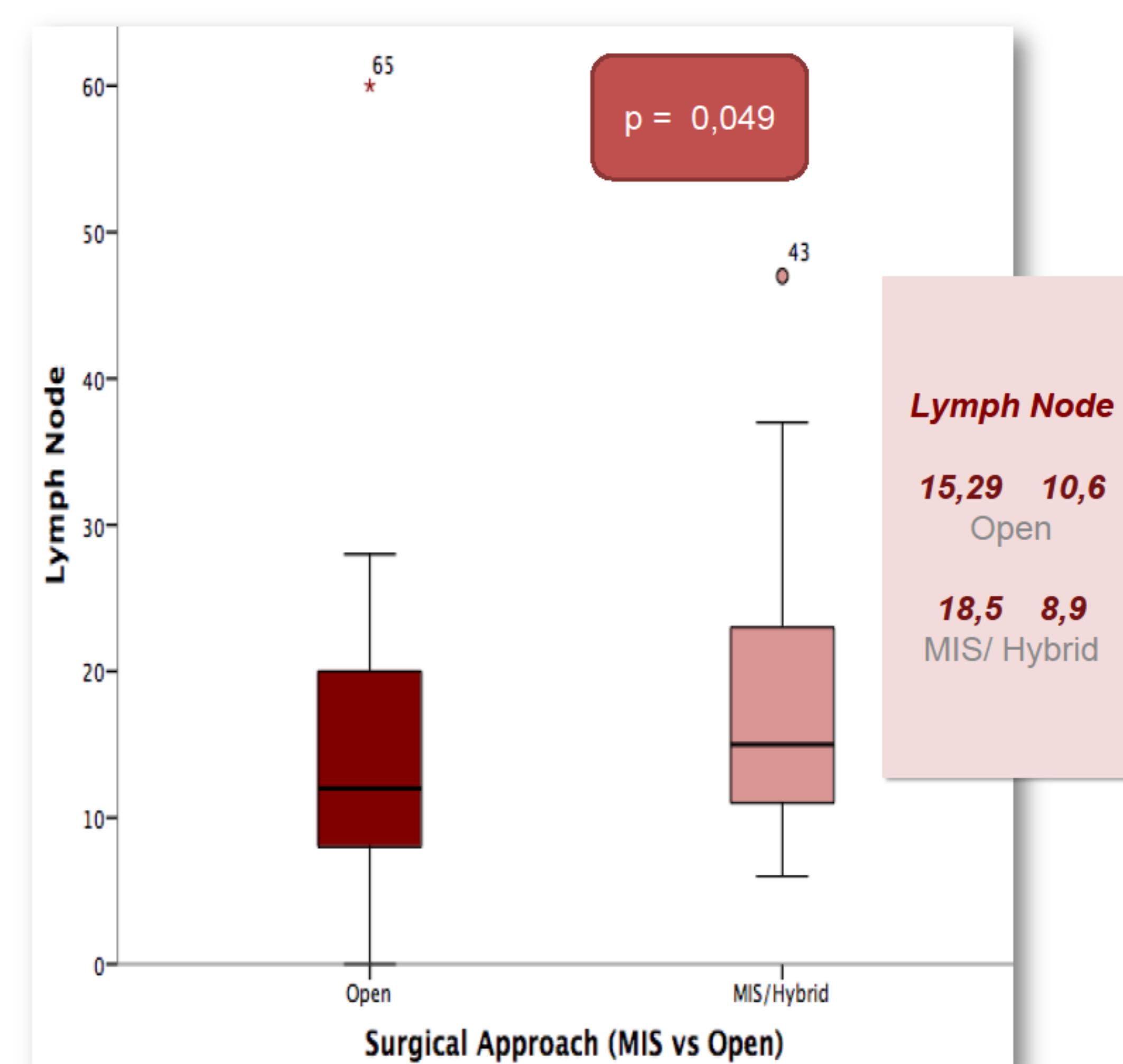
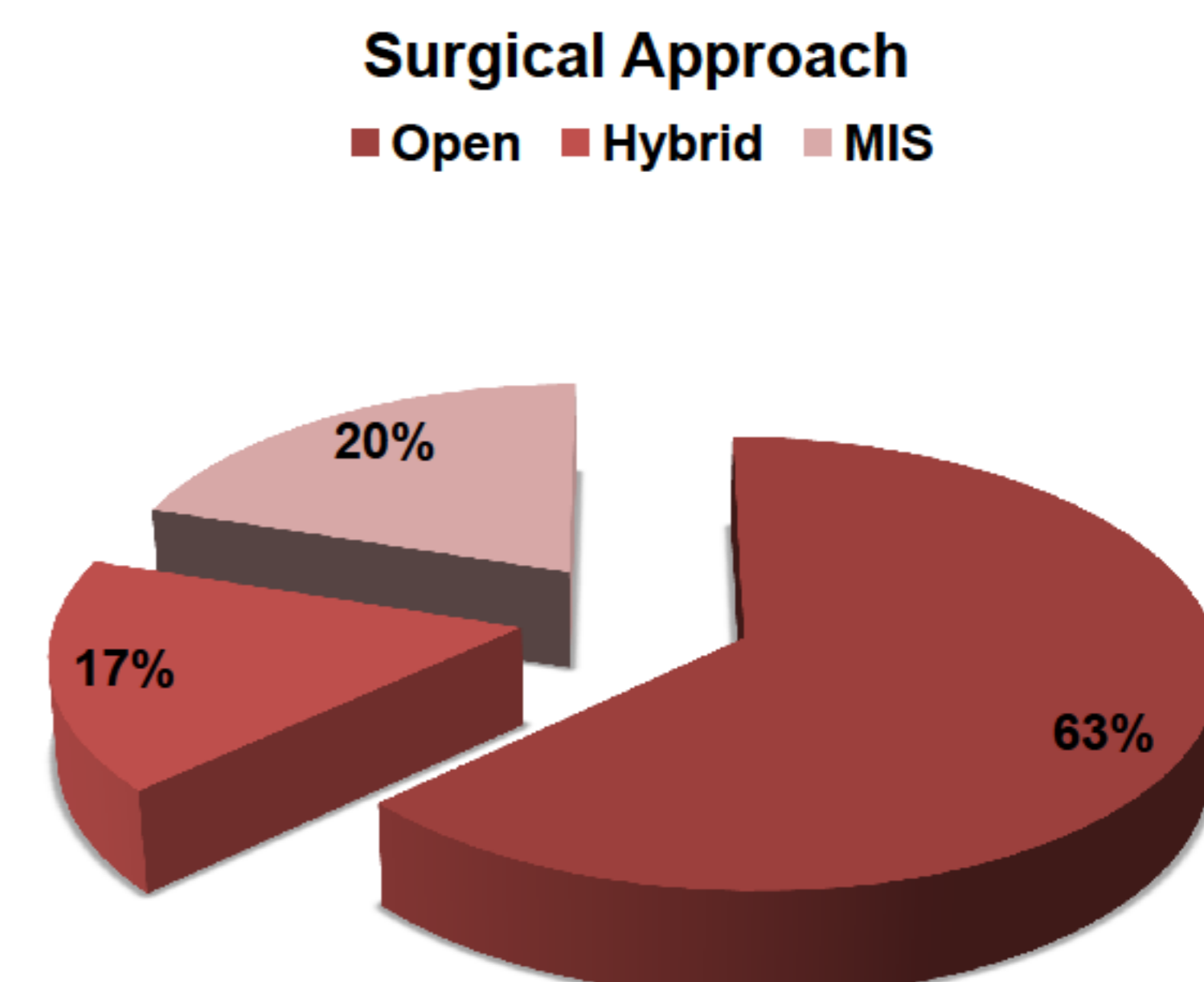


Introduction: Esophagectomy is one of the most challenging surgical procedures. Minimally invasive techniques (MIE) have been introduced in an attempt to reduce postoperative complications and recovery times. Debate continues over whether the quality of the oncological resection is compromised. The aim of this study was the comparative analysis of the oncologic results between MIE and open esophagectomy (OE).

Methods: We performed a case-control study based in a prospective database with 65 esophageal cancer cases submitted to curative intent surgery, between May 2006 and October 2014. All surgeries were performed by surgeons of a specialized gastro-esophageal surgical unit at Centro Hospitalar de São João - University of Porto Medical School. Follow-up (range 0-97, median 9 months) was completed for the entire study population in October 2014. Institutional review board approval was obtained for this study (CES 295-14).

	OE n (%)	MIE/ Hybrid n (%)	Total n (%)	p
Gender (n=65)				
Female	9 (75)	3 (25)	12 (18,5)	0,511
Male	32 (60,4)	21 (39,6)	53 (81,5)	
Comorbidities (n=65)				
Yes	28 (63,6)	16 (36,4)	44 (67,7)	1,000
No	13 (61,9)	8 (38,1)	21 (32,3)	
Resection Margin(n=62)				
R0	34 (59,6)	23 (40,4)	57 (91,9)	0,603
R1	3 (75)	1 (25)	4 (6,5)	
R2	1 (100)	0 (0)	1 (1,6)	
Age (n=65)				
Mean SD (years)	61,37 10,9	61 9		0,890
BMI (n=65)				
Median (kg)	21,1	23,7		0,215
(max-min)	(17,1-30,4)	(16,5-30,4)		

	OE n (%)	MIE/ Hybrid n (%)	Total n (%)	p
Type of Resection (n=65)				
Ivor-Lewis	31 (63,3)	18 (36,7)	49 (75,4)	0,358
McKeown	6 (50)	6 (50)	12 (18,5)	
Trans-hiatal	2 (100)	0 (0)	2 (3,1)	
Akiyama	2 (100)	0 (0)	2 (3,1)	
Tumor Location (n=65)				
Superior 1/3	2 (66,7)	1 (33,3)	3 (4,6)	0,857
Middle 1/3	18 (66,7)	9 (33,3)	27 (41,5)	
Lower 1/3	21 (60)	14 (40)	35 (53,8)	
Neoadjuvant Treatment (n=65)				
Yes	29 (65,9)	15 (34,1)	44 (67,7)	0,586
No	12 (57,1)	9 (42,9)	21 (32,3)	
Histologic Type (n=65)				
Adeno-carcinoma	5 (50)	5 (50)	10 (15,4)	0,479
Squamous Cell	36 (65,5)	19 (34,5)	55 (84,6)	
TMN (7th edition , 2010) Classification (n=65)				
T1-2	12 (66,7)	6 (33,3)	18 (34)	0,565
T3-4	20 (57,1)	15 (42,9)	35 (66)	
Disease Recurrence (n=65)				
Yes	18 (56,3)	9 (37,5)	27 (48,2)	0,188
No	14 (43,8)	15 (62,5)	29 (51,8)	



Conclusions: The results of this case-control study provide further evidence for the oncological safety of MIE, with comparable results to OE.

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