

COST ANALYSIS OF SURGICAL TREATMENT FOR PELVIC ORGAN PROLAPSE: LAPAROSCOPIC SACROCOLPOPEXY VERSUS CORRECTION WITH VAGINAL MESH.

Hypothesis / aims of study

The optimal surgical treatment of pelvic organ prolapse (POP) is controversial. Since FDA warning at 2011 about the possible complications of POP correction with transvaginal mesh (TVM), the surgical treatment of POP with abdominal mesh by laparoscopic sacrocolpopexy (LSC) is having an increasing diffusion.

The aim of this study is to analyse the cost of the POP surgical treatment with TVM and abdominal mesh (LSC).

Study design, materials and methods

A retrospective analysis comparing the cost of the 69 consecutive procedures of LSC performed between November 2011 and June 2014 compared to the 69 consecutive procedures of TVM performed between September 2005 and December 2008. For both techniques, the direct costs of each procedure were determined and the mean costs per procedure of each technique (LSC and TVM) were calculated. The direct costs includes: structural and administrative costs, staff costs, operating room time costs, hospital stay costs, pharmaceutical costs, consumables and inventoriable equipment and the costs of the implants. The cost data were obtained from de analytical accounting system of the Hospital. The mesh used for LSC was a nonabsorbable polypropylene mesh.

Table 1 describes the characteristics of each group.

	PROLIFT				LSC			
	Mean	SD	Min	Max	Mean	SD	Min	Max
Age (years)	65.19	9.60	44	85	68.55	8.49	35	88
Operating room time	145.36	12.32	100	180	210.22	62.06	120	360
Operating room occupancy	3.33	0.28	2,29	4,12	4.82	1.42	2.75	8.25
Hospital stay (days)	5.77	2.06	3	16	3.77	1.31	2	10
Bladder catheter (days)	2.8	2.10	1	16	2.73	2.09	1	10
	n	%			N	%		
Suburethral sling	41	59.42			0	0.00		
Intraoperative complications	5	7.25			9	13.04		
30 days complications	Minor	6	8.70		11	15.94		
	Mayor	11	15.94		4	5.80		
Transfusion	1	1.45			0	0.00		

Results

Table 2 shows the mean cost in euros per procedure of each technique with their confidence interval.

	TVM		LSC		
	Mean	SD	Mean	SD	
Staff	404.17	144.28	315.82	109.60	
Pharmaceuticals	32.3	11.53	5.51	1.91	
Prostheses and implants (mesh)	1196.26	Constant	257.02	Constant	
Pharmaceuticals (rest)	10.21	Constant	5.64	Constant	
Prostheses and implants (rest)	84.95	Constant	134.45	Constant	
Performance (rest)	21.91	Constant	28.94	Constant	
Operating room costs	1724.14	146.09	2643.97	780.51	
Anesthesia and resuscitation	382.78	32.43	812.63	239.89	
Breakfast	16.96	6.05	11.83	4.10	
Lunch	62.53	22.25	43.48	15.10	
Afternoon meal	11.31	4.04	7.88	2.73	
Dinner	59.3	21.16	41.37	14.36	
Hospital stay	1065.83	380.47	898.36	311.77	
Intermediate services	1041.76	371.87	651.66	226.16	
Structural costs	98.98	35.33	22.8	7.91	
Suburethral sling	321.09	259.33	0	0,00	
TOTAL	Mean (SD)	6534.31	1015.52	5985.7	1550.87
	CI95%	6290.36	6778.27	5613.14	6358.26
	Min-Max	4989.48	11234.79	3990.48	11969.92

Interpretation of results

The TVM group has a higher costs related with a higher hospital stay (staff, pharmaceuticals, cost of hospital stay, structural costs, breakfast, lunch, afternoon meal, dinner and intermediate services) and with a higher cost of the mesh. The main costs of the LSC are the costs related to the higher operating room time (Operating room costs and Anesthesia and resuscitation), on the other hand, the LSC group present a lower costs related to the mesh and the hospital stay.

In this study, surgical treatment of POP with LSC present a lower cost per procedure than the vaginal treatment with TVM. However the confidence intervals of each group overlap, so the difference between the two techniques does not reach the statistical significance. Furthermore, in this study we have shown that the LSC has at least a similar cost per procedure than TVM procedure.

Concluding message

Surgical treatment of POP with abdominal mesh by LSC presents at least a similar cost per procedure than correction with TVM

Disclosures

Funding: There is no source of funding or grant. **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** Because it is a retrospective analysis. **Helsinki:** Yes **Informed Consent:** Yes