

ULTRASOUND FINDINGS AMONG VAGINAL HYSTERECTOMY AND MESH HYSTEROPEXY FOR GENITAL PROLAPSE REPAIR

Hypothesis / aims of study

Ultrasound findings after genital prolapse surgery: vaginal hysterectomy versus mesh hysteropexy.

Study design, materials and methods

We present the preliminary results of a randomized controlled trial. 50 patients (stage POP-Q \geq II) were recruited between february 2010 and february 2014 and randomized to hysterectomy or hysteropexy groups. All patients were subjected to an ultrasound to determine pelvic organ descent on maximal Valsalva maneuver (best of at least three attempts), at rest and on contraction with three-dimensional (3D) capable ultrasound systems (GE Voluson 730 Expert, General Electric, USA), before surgery and 6 and 36 months after that. We recorded the elevator muscle hiatus areas at rest, on contraction and on maximal Valsalva maneuver.

Results

20 patients were randomized to the hysterectomy group and 30 patients were randomized to the hysteropexy group. There were no significant differences in age, BMI, parity or POP-Q stage (Fig 1).

Groups	Hysterectomy (n=20)	Hysteropexy (n=30)	p value
	mean (range)	mean (range)	
Age (years)	65,80 (45-79)	62,53 (48-76)	0,124
BMI (kg/m ²)	28,53(23-39)	27,46 (22-32)	0,807
Parity	2,05 (0-3)	2,33 (1-7)	0,816
POP-Q stage	2,65 (2-4)	2,47 (2-4)	0,317

Figure 1

Mean preoperative hiatal area was 24,53 cm² at rest, 21,24 cm² on contraction and 29,55 cm² on Valsalva maneuver. After 6 months the mean hiatal area was 19,63 cm² at rest, 17,33 cm² on contraction and 24,96 cm² on Valsalva maneuver. Finally, after 36 months, the mean hiatal area was 19,61 cm² at rest, 16,93 cm² on contraction and 25,55 cm² on Valsalva maneuver.

Taking into account patients that presented with presurgical ballooning (area on Valsalva maneuver > 25 cm²), the results are similar to those when all patients are analysed. There is a statistically significant decrease in the hiatal area at 6 and 36 months follow-up, but without technical differences. Prior to surgery, 85,7% of patients presented with ballooning, whereas only 14,3% had an area <25 cm². However, after 36 months, 50% of patients had an area <25 cm². Fig 2 shows the prevalence of ballooning stratifying by POP-Q degree.

	Grado					Total
	0	1	2	3	4	
Ballooning						
<25cm ² (normal)	0	0	5	3	0	8
25-29,9cm ² (mild)	0	0	10	7	1	18
30-34,9cm ² (moderate)	0	0	6	12	0	18
35-39,9 cm ² (severe)	0	0	1	1	0	2
≥40cm ² (very severe)	0	0	2	1	1	4
Total	0	0	24	24	2	50

Figure 2

The path mesh could not be seen in full as well as in arcus tendinous, cardinal or uterosacral ligaments.

Interpretation of results

Data show a global reduction of the postoperative hiatal area at rest, on contraction and on Valsalva maneuver, regardless of the surgical technique used.

In this study, even though 50% of patients had ballooning after 3 years follow-up, only two were symptomatic. In half of the patients, an excessive hiatal distensibility persisted independently of the surgical reparation of the symptoms or signs of prolapse. This fact suggests that it is more probable that the hiatus widening is the cause and not the consequence of POP (1). This would explain the lack of differences between the two techniques. We believe that, this still being an open study, a long-term follow-up is required, as 3 years might be insufficient for the diagnosis of relapses. We need more knowledge for interpreting the path mesh by ultrasound.

Concluding message

Hysterectomy and hysteropexy could decrease the hiatal area regardless of the technique.

Disclosures

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