What do preoperative urodynamics in patients having laparoscopic sacrohysteropexy tell us?

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Background

• There is a correlation between the presence of pelvic organ prolapse (POP) and lower urinary tract symptoms (LUTS) 1.
• The impact of laparoscopic mesh sacrohysteropexy (LSH) on LUTS in women undergoing treatment for POP has previously been described 2.
• Urodynamic studies (UDS) enable measurement of bladder function, and their utility prior to other forms of POP surgery have previously been studied 3.
• To date, the utility role of preoperative UDS in women undergoing LSH has not been reported.

Objective

• To determine if preoperative UDS predict postoperative bladder symptoms in women undergoing LSH.

Methods

• Retrospective case series of women who underwent UDS prior to LSH.
• Tertiary urogynaecology centre.
• Case note review 2010 – 2018.
• Wilcoxon signed-rank matched pairs test was used to compare ICIQ-UI scores pre- and post operatively.
• Statistical analysis using StataSE 15.

Results

• Seventy cases were included. Demographic data and preoperative UDS diagnoses are shown in Figure 1.
• Normal UDS were associated with a 15% risk of postoperative overactive bladder (OAB) and a 38% risk of stress urinary incontinence (SUI). Preoperative detrusor overactivity (DO) was predictive of postoperative OAB, compared to normal UDS (78% vs 15%, p = 0.003).
• In the presence of preoperative urodynamic stress incontinence (USI), a concurrent continence procedure:
  • Increased the likelihood of a favourable PGI-I, shown in Figure 2.
  • Reduced the likelihood of patient reported SUI, however this was not statistically significant (13% vs 44%).
• There was no significant difference in bladder patient reported outcome measure scores in any of the groups, shown in Figure 3.

Conclusion

• UDS may guide patient counselling prior to LSH; women with normal UDS can be reassured about a low risk of postoperative OAB, and women with DO can be counselled about the likelihood of persistent postoperative OAB symptoms.
• Concurrent continence procedures in the presence of USI improves the patient impression of improved incontinence.
• Our study is limited by small numbers and retrospective data, further prospective work appears warranted.

References: