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# Success rates and outcomes of laparoscopic mesh sacrohysteropexy



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## Background

Uterovaginal prolapse is a prevalent gynaecological issue which can have a negative impact on the quality of life of women.

Hysterectomy with vault suspension and vaginal repair is the standard surgical management of these patients.<sup>1</sup> Up to 40% of women undergoing vaginal hysterectomy will subsequently develop vault prolapse as hysterectomy does not correct the underlying pathophysiology of prolapse.<sup>2,3</sup> This has led to the emergence of uterine-preserving techniques that provide level one support.

Sacrohysteropexy involves suspension of the uterus from the sacral promontory using either sutures or polypropylene mesh.

To our knowledge, this is the first study with a large cohort of women undergoing laparoscopic sacrohysteropexy for prolapse and long-term follow-up from Australia.

## Objectives

This study aimed to evaluate the impact of laparoscopic mesh sacrohysteropexy on symptomatic prolapse and resolution of symptoms from an Australian experience.

Primary outcome is the success rate according to the pelvic organ prolapse quantification (POP-Q) system. Secondary measures included complication rates, patients identified as having stage III and IV prolapse and their outcomes.

## Methods

This retrospective cohort study presents outcomes of 138 patients with symptomatic pelvic organ prolapse (POP) who underwent laparoscopic mesh sacrohysteropexy at a private practice in South Australia during 2007-2017.

Outcomes analysed included patient demographic indices such as age, BMI, parity, and previous vaginal surgery. Other data included concomitant procedures, postoperative follow-up, and complications.

The primary outcome was point C and the POP-Q stage at six weeks postoperatively, and yearly thereafter. The post-operative follow-up was at four to six weeks, six months to one year, and long-term after twelve months.

## Results

The median age was 58 years (range 27-86 years), median parity was 2 (range 0-6), and median BMI was 26.8 (range 23-29.9). There were 134 (97.10%) women who required concurrent vaginal prolapse repair and four women (2.90%) had an isolated laparoscopic hysteropexy.

The objective measurements of point C pre- and post-operatively include a mean change of 7.6 cm ( $p < 0.01$ ) as depicted in Table 1. Of the 136 patients (98.6%) seen at the immediate follow up, all had Stage 0 POP-Q score, demonstrating an immediate success in anatomical reduction of the prolapse in the short-term.

Categorical measures were summarised as numbers failed (disease recurred) and censored (disease did not recur by final follow-up). The probability of survival was approximately 0.8 at 24 months as seen in Figure 1.

Prolapse recurrence was observed in 22 patients, while 116 patients remained cured at their last follow-up. Prolapse recurrence was associated with anterior vaginal mesh, previous prolapse surgery, pre-operative stage III-IV disease and number of vaginal deliveries.

There were no major complications observed following a laparoscopic sacrohysteropexy.

## Conclusion

Overall, at their last review (up to 10 years postoperatively), 84% of patients were symptom free.

Patients who had a pre-operative stage III or IV had a higher likelihood of prolapse recurrence at an earlier interval. As such, we would advocate that patients with Stage IV prolapse would benefit from other forms of POP management given the higher failure noted in this study.

Laparoscopic sacrohysteropexy is no longer performed in conjunction with synthetic vaginal mesh procedures. This current study found that the use of anterior vaginal mesh is associated with post-operative complications, and a higher chance of procedure failure in a sacrohysteropexy.

Laparoscopic sacrohysteropexy is a safe, feasible, and well-tolerated procedure for women with POP. It should be considered as an alternative to hysterectomy in women with a stage II or III POP as it has a high success rate. It is an innovative uterine-preserving procedure that can aid in treating these women. We advise that this procedure should be performed by trained gynaecologists in pelvic floor reconstructive units whom are credentialled as a Level VI Laparoscopic Surgeon.

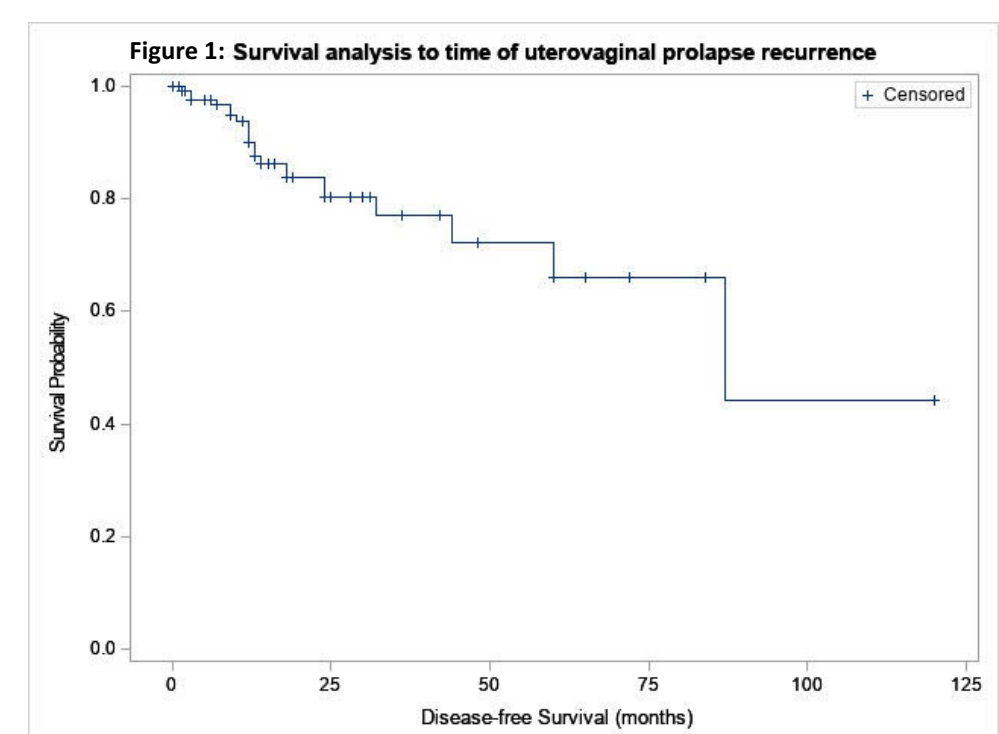


Table 1: Change in Point C

Variable	Mean	STD	Median
Pre-operative point C	0.6	1.7	1.0
Post-operative point C	-7.0	0.9	-7.0
Change in point C	7.6	1.8	7.5

## References

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