



# SURGICAL MANAGEMENT OF SACROCOLPOPEXY MESH COMPLICATIONS

Alan Quach, M.D., Margaret Higgins, M.D., Daniel S. Jimenez, Kirk D. Redger, M.D., Brian J. Flynn, M.D.

Division of Urology: University of Colorado School of Medicine

## Background

Abdominal sacrocolpopexy (SC) with polypropylene mesh is a reliable and effective approach to treating pelvic organ prolapse. Risks of mesh complications range from 0% to 5%, including mesh erosion at 2.7%. Some complications can be managed conservatively with estrogen and antibiotics. Erosions and mesh perforations, however, require mesh removal. Experienced surgeons thus should perform this procedure to resolve any post- and intraoperative complications.

## Objectives

To highlight our experience and demonstrate our technique for robotic-assisted laparoscopic (RAL) surgery for the treatment of complex mesh complications through a retrospective review of 15 cases of patients who underwent this procedure at our institution.

## Methods

A retrospective review from a single surgeon was conducted for 15 cases of RAL SC mesh removal at a tertiary surgical center between December 2013 and April 2019. Cases were included if SC mesh perforation was imminent or found to have perforated nearby structures. Results are presented as median (range) for continuous variables and n (%) for categorical variables.

Patient Characteristics	Cohort (n=15)
Age, yr	57 (31-82)
Time to erosion, mo	34 (0.3 – 90)
Site of Perforation - N(%)	
Posterior Bladder Wall	6 (40%)
Vaginal Apex	5 (33%)
Sigmoid Colon	1 (6%)
Impending Perforation	1 (6%)
Vaginal Apex + Sigmoid Colon	1 (6%)
Vaginal Apex + Bladder	1 (6%)
Pre-Operative Symptoms - N(%)	
Pain	10 (66%)
Incontinence	8 (53%)
Pain Dyspareunia	8 (53%)
Hematuria	4 (27%)
Infection	4 (27%)
Prolapse	3 (20%)

Table 1. Preoperative presentation

\* Median(Range)

Patient Results	Cohort (N=15)
	Median (range)
Duration of Surgery, minutes	303 (202-487)
Length of Stay, days	2 (1-7)
Catheter Duration, days	8 (1-136)
Follow-up, d <sup>‡</sup>	446 (26-1258)
	N (% of cohort)
Repeat SC w/Cadaveric Fascia	13 (86%)
Suprapubic Catheter Placement	6 (40%)
Postoperative outcome	
Post-Operative Incontinence <sup>‡</sup>	5 (36%)
Postoperative prolapse <sup>‡</sup>	0 (0%)
Postoperative complication	3 (20%)

Table 2. Peri- and postoperative characteristics

<sup>‡</sup>Cohort N = 14, one patient lost to follow-up

## Results

Fifteen cases were completed using RAL approach without the need for conversion to an open procedure. Median patient age was 51 years and median follow up was 1.4 years. Preoperative symptoms are shown in Table 1. The most common sites of mesh perforation involved the posterior bladder wall (40%), vaginal apex (33%), and sigmoid colon (6%). Three patients had concomitant vesicovaginal fistulas. Operative details are found in Table 2. Repeat SC was performed using cadaveric fascia in 85% of cases. Three patients developed postoperative complications requiring additional surgery: a colovesical fistula, a vesicovaginal fistula, and a mesh exposure. At final follow up, 64% of patients were completely continent (0 pads per day). No patients developed pelvic organ prolapse postoperatively.

## Conclusion

RAL surgery is safe and effective for removal of polypropylene mesh in patients with complications involving erosion of adjacent structures. When removing perforating mesh from prior sacrocolpopexy, we successfully completed 13 RAL cases without the need for transvaginal dissection. In our video (photographs), we demonstrate our technique of using cadaveric fascia to perform repeat sacrocolpopexy at the time of mesh removal

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