

Is vaginally assisted laparoscopic sacrohystero/colpopexy a feasible technique?

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To the Editor,

Pelvic organ prolapse (POP) is defined as the descent of one or more of the pelvic organs, with a woman having symptoms related to the “downward displacement” of a pelvic organ. POP is very common in pre- and postmenopausal women; the lifetime risk of women undergoing a surgery for POP is about 11% and about 30% will undergo repeat surgery (1). A variety of surgical techniques including vaginal, abdominal, and laparoscopic (conventional or robotic) approaches can be used for management. Laparoscopic sacrohystero/colpopexy (LSHC) provides the potential to combine the success rates of an abdominal approach with the superiorities of minimally invasive surgery. However, LSHC requires high levels of laparoscopic operative skills and experience and is associated with longer operative times (2). In light of these data, we designed our new technique, vaginally assisted laparoscopic sacrohystero/colpopexy, with the aim of facilitating the procedure and reducing operation time, and recently we presented our technique (3). The most important part of our technique is the combination of both vaginal and laparoscopic routes and transferring the mesh to the sacral promontory by retroperitoneal tunneling (3). Eventually, the operation time was significantly reduced. This technique can also be combined with other vaginal approaches such as Manchester–Fothergill operation (4).

In the literature, there are limited reports about vaginally assisted laparoscopic approaches. Among

them, four of these presented their reports of vaginally assisted laparoscopic sacrocolpopexy (VALSC) cases (5–8) and all of them concluded the feasibility, validity, and safety of the technique. The remaining two of these reports presented vaginally assisted laparoscopic sacrohystero/colpopexy (VALSH) (9,10), and only Sanverdi et al. used the retroperitoneal tunneling method (10) like us. The others put the mesh inside the pelvic cavity and then they continued their technique in a conventional style; they concluded that VALSH is a safe and effective minimally invasive procedure in uterovaginal prolapse. In the technique of Sanverdi et al., the mesh was fixed only onto the posterior face of the uterine cervix, distinct from our technique (10). We fixed the mesh onto both the anterior and posterior faces of the uterine cervix and this approach can hold the uterine axis in a more anatomical plane (3). In the Table, VALSC/VALSH procedures and their outcomes are presented in detail.

In our opinion, VALSC/VALSH approaches appear to be feasible, effective, and safe minimally invasive options for uterovaginal prolapse. They significantly reduce the operation time and provide an easy suturing of the mesh to the cervix/vagina via the vaginal route. Additionally, it seems that retroperitoneal tunneling makes the process even easier. Further studies are needed to assess these techniques and compare them with other pelvic reconstructive procedures.

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Table. Published series of vaginally assisted laparoscopic sacrohysterocolpopexy procedures.

Authors	Year	Study type	Procedures / patients (n)	Operation time, min (min-max)	EBL, mL (min-max)	Hospital stay, days (min-max)	Complications
von Pechmann et al. (5)	2011	Comparative	VALSC (44) vs. LSC (26)	215.2 ± 41 vs. 269.7 ± 55.6	N/A	2 (1-11) vs. 2 (1-9)	Intraoperative: Serosal small bowel injury, 1 vs. 0; cystotomy, 0 vs. 1 Postoperative: Ileus, 1 vs. 0; acute renal failure caused by ketorolac, 1 vs. 0; abdominal cellulitis, 1 vs. 0; postoperative SUI, 7 vs. 3; mesh extrusion, 1 vs. 0
Athanasidou et al. (6)	2013	Case series	VALSC (27)	74 (60-120)	310 (250-400)	2.8 (2-5)	De novo constipation, 3; prolene suture visibility at vaginal vault, 1
Grigoriadis et al. (7)	2015	Case report	VALSC (1)	N/A	N/A	N/A	-
Aharoni et al. (8)	2017	Comparative	VALSC (45) vs. LSC (28)	84 (54-122) vs. 92 (N/A)	N/A	2 (N/A) vs. 2 (N/A)	Postoperative fever, 2 vs. 1; transient urinary retention, 1 vs. 0; recurrent uterine prolapse at postoperative 3 weeks, 0 vs. 1; subjective cure rate at 1-5 years after the operation, 88% vs. 73%
Fayyad et al. (9)	2014	Case series	VALSH (70)	122 (45-150)	100 (50-200)	1.5 (22 h to 3 days)	Bladder injury, 2; pelvic hematoma, 2; de novo SUI, 6; mesh comp., 2; recurrent uterine prolapse, 6; recurrent anterior vaginal prolapse, 10
Sanverdi et al. (10)	2017	Case series	VALSH-RT (33)	59.5 (20-120)	N/A	N/A	-
Tapisiz et al. (3)	2017	Case report	VALSH-RT (1)	90	200	2	-

VALSC: Vaginally assisted laparoscopic sacrohysterocolpopexy; VALSH: vaginally assisted laparoscopic sacrohysterocolpopexy; LSC: laparoscopic sacrohysterocolpopexy; RT: retroperitoneal tunneling, SUI: stress urinary incontinence.

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