

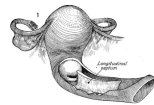
Surgical management of longitudinal vaginal septa with Ligasure: a case series 2022

Vandermolen, B; Deegan, N; Yasmin, E; Learner, H

Department of Women's Health
University College Hospital, London.

Background:

Longitudinal vaginal septa (LVS) occur due to failed fusion of müllerian ducts vaginally and result in a septum of varying length dividing the vagina in two. LVS can affect tampon use, vaginal sex and vaginal delivery. Surgical management is offered for symptomatic patients. Traditional surgery involves resection of the septum with suturing, vaginal pack insertion and overnight hospital stay.



Ligasure (a handheld bipolar electrothermal device) was introduced in our unit in 2015 to improve surgical management and post-operative stay.

This study aimed to describe the use of Ligasure in the surgical management of longitudinal vaginal septa.

The Ligasure device

The Ligasure device is an electrothermal bipolar vessel-sealing system that can seal and transect vessels up to 7 mm in diameter with thermal spread between 1 and 4 mm tissue depth. (2)

At this depth the device reduces the potential for bladder or rectal injury. It can also seal slightly larger vessels than the Harmonic device (Medtronic, Dublin, Ireland), which seals vessels up to 5 mm with a thermal spread of up to 6 mm in diameter.

The confined space of the vagina makes the tip size advantageous. The Ligasure small jaw instrument has a small 16.5-mm seal length at the tip and a total length of 18.8 cm which is beneficial in vaginal surgery. (2)



Methods:

This was a retrospective review of the medical records of a series of patients undergoing surgery for LVS using Ligasure at a centre for complex congenital gynaecological anomalies from 2015 to 2022.

Patients that had LVS excised as part of a more complex procedure such as vaginoplasty were excluded.

Patients with complex urogenital anomalies such as cloacal anomalies or bladder exstrophy were excluded.

Data was collected on age, BMI, parity, history of vaginal sex, symptoms/reason for referral, presence or absence of uterine anomaly, surgery and outcomes.

Results:

25 patients were identified and records were available in 24 cases. Median age at surgery was 24 years (15-43). Sixteen (64%) were referred with difficulty with tampons/vaginal sex. 18 of 24 patients (75%) had previously had vaginal sex. 21 of 24 patients were nulliparous (88%), 3 patients were para 1 (11%)

No intra-operative complications were reported and blood loss was documented as minimal in all operations. 2 patients had a vaginal pack/urinary catheter inserted at the time of surgery.

In ten cases (40%) the edges were oversewn with vicryl rapide in interrupted fashion, and in one case the edges were oversewn in continuous fashion.

Most patients (23/25) were discharged home the same day.

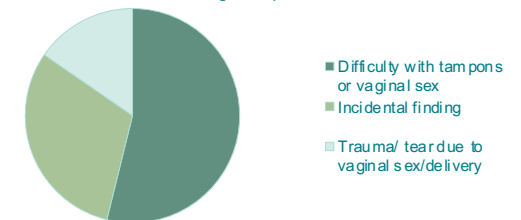
Five patients (all previously sexually active) were re-admitted within seven days of surgery with heavy bleeding. Three were treated medically and discharged home. Two patients required return to theatre for suturing of bleeding septal edges.

One of these patients required a third surgical procedure to identify and secure the source of post-operative bleeding.

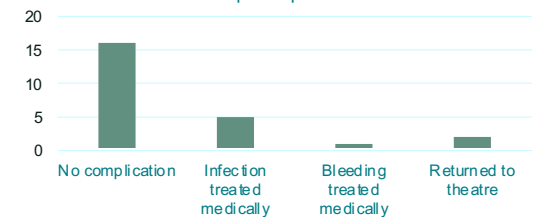
Two patients were treated with antibiotics in primary care for suspected vaginal infections.

1 patient has since been re-referred with dyspareunia three years post-surgery.

Presenting complaint



Postop complications



Conclusion

Ligasure is a safe and effective addition to the surgical management of LVS and allow day-surgery management. Patients who are sexually active should have vaginal swabs as part of their pre-operative clinic work up.

It is essential that patients have direct access to specialized post-operative support and assessment in the event of post-operative bleeding.

References:

1. Atlas of pelvic surgery; Clifford R Wheelless JR MD, Marcella L Roenneburg MD
2. Vessel Sealing - Ligasure Small Jaw Open Instrument. Medtronic, Inc, Doral, FL, 28 October 2014.