

## vNOTES hysterectomy technique in a case with big broad ligament fibroid: Video Article

Author: <sup>1 2</sup> Suyash Naval

Affiliation: <sup>1</sup> Lifescope NOTES Centre, Naval Multi Specialty Hospital, M. J. College Road, Near Bhaskar Market, Jalgaon- 425001, Maharashtra, India

<sup>2</sup> Jawaharlal Nehru Medical College, Sawangi (Meghe), Wardha- 442107, Maharashtra, India

### Abstract

#### Introduction:

The objective of this video is to demonstrate the transvaginal natural orifice transluminal endoscopic surgery (vNOTES) hysterectomy technique in a case with a big broad ligament fibroid.

**Key words:** vNOTES; hysterectomy; fibroid; NOTES; morcellation

#### Materials and methods:

A 43-year-old female with pain in the lower abdomen (VAS= 5/10) for 4 months introduced herself in our clinic. A Pelvic ultrasonography revealed a large left broad ligament fibroid (16 x 14.4 x 12.5 cm). Vaginally assisted NOTES hysterectomy with vaginal morcellation in a MorSafe® bag (Veol Medical Technologies Pvt Ltd, TTC Industrial Area, Koparkhairane, Navi Mumbai 400705, Maharashtra, India) was planned and performed. For manipulating the uterus, grasping and applying traction on large fibroid, the NAVAL NOTESYNC® device (Pee Bee India, Pantnagar, Ghatkopar (E), Mumbai 400075, India) was used during the procedure. The main outcome was a complete removal of the uterus with fibroid and bilateral fallopian tubes trans-vaginally. A step-by-step procedure video with an explanation was produced.

Corresponding author: Suyash Naval

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## Results and discussion:

The duration of the surgery was 194 minutes and blood loss was about 230 ml. The specimen, weighing 1.645 Kg, was successfully removed without intraoperative and postoperative complications. The patient was discharged on day 3.

The vNOTES approach for large uterus can provide three critical advantages over the conventional laparoscopic approach. First, the uterine vessels can be sealed very early due to the short distance to the vaginal access, probably contributing to the limited blood loss. Secondly, it is easier to approach pedicles transvaginally as the lower segment is narrower in comparison to the transversely enlarged fundus thus providing good space in the pelvis. Thirdly, it was easy to visualize the ureter and dissect the large broad ligament fibroid from the retroperitoneum. Long-length laparoscopy instruments and the gravity of the large specimen were utilized for bagging the specimen. Possibly, due to these advantages, several authors have found the feasibility of vNOTES for hysterectomy of large uteri an interesting alternative. Multicenter studies may show these benefits and ask whether this technique is also beneficial for less experienced surgeons.

## Conclusions:

vNOTES is a feasible minimally invasive technique of hysterectomy for the removal of even large uteri. The endoscopic vision allows the surgeon to tackle difficulties in the dissection and the removal of a large specimen. Only surgical teams with significant experience in vNOTES should do such procedures.

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