

Transvaginal natural orifice transluminal endoscopic surgery (vNOTES), a endometrial cancer case series

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What is vNOTES Hysterectomy?

- A technique to remove the uterus and adnexal organs if required by laparoscopic surgery conducted through the vagina
- There are no abdominal scars
- It is similar to a vaginal hysterectomy with pedicles and fascia being divided by laparoscopic instruments
- First reported in 2012

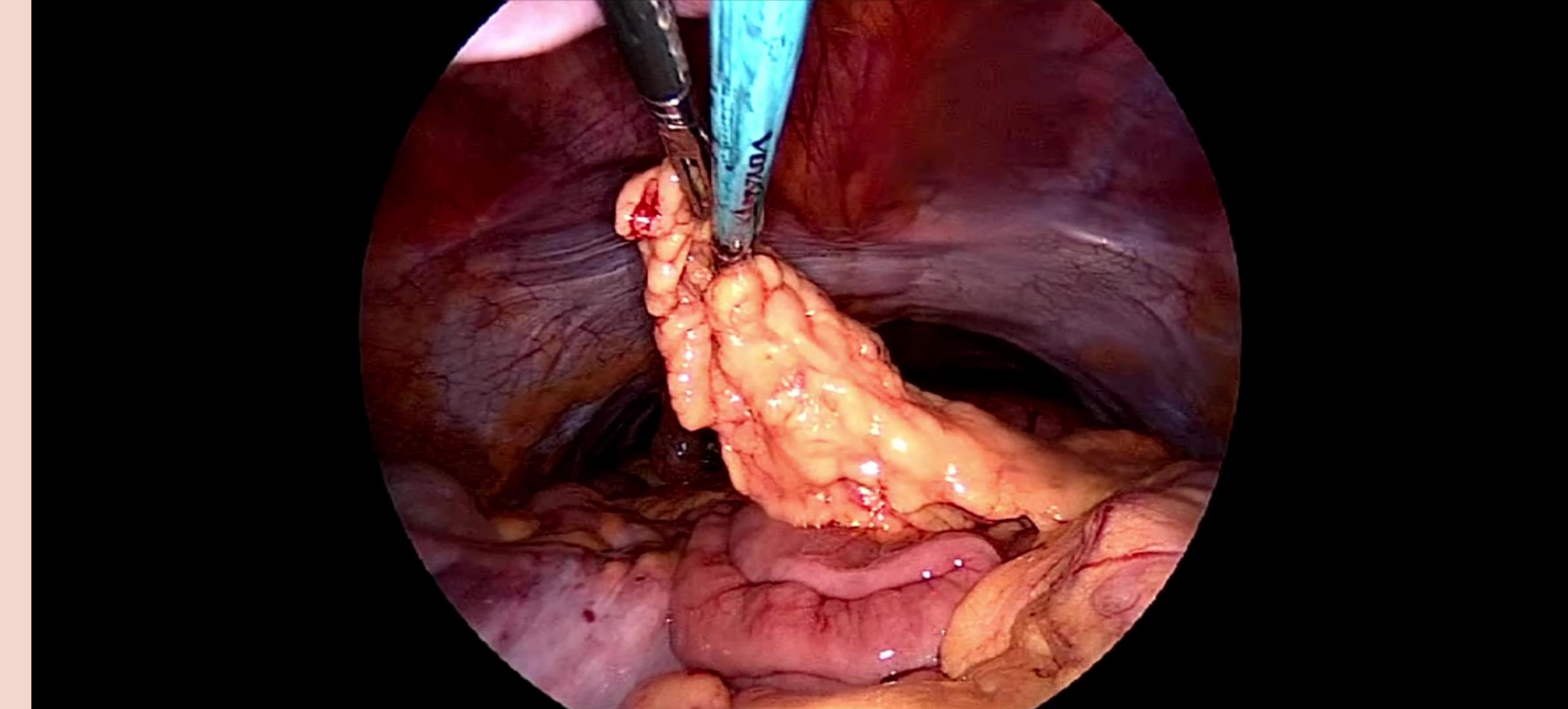


Current literature

- There is considerable literature on vNOTES hysterectomy for benign indications, including randomised controlled trials and a systematic review last conducted in 2020¹. This showed the same or better outcomes than laparoscopic hysterectomy
- There is limited published or available literature on vNOTES for endometrial Cancer:
 - Lee et. al in 2014 published 3 cases of FIGO 1A Endometrial Cancer with lymph node dissection²
 - Mat et al. in 2020 published on the use of vNOTES for extremely obese patients (6 cases with a mean BMI of 51.4) with good success³
 - Baekelandt in 2019 published on the successful use of retroperitoneal vNOTES for sentinel node resection in 15 patients as compared to transperitoneal approach⁴
 - Wang et al published in 2021 the outcomes of 23 patients undergoing vNOTES with transperitoneal SLN mapping as compared to Abdominal Laparoscopy and found similar outcomes between groups⁵
 - Burnett and Rojo in 2021 present their first fifty patients operated on for low grade endometrial Ca in a non peer reviewed paper, showing overall good outcomes⁶
 - In 2022 Lee et.al again published a series of 15 cases of Stage 1 endometrial cancer with SLN biopsies by the transperitoneal approach⁷
 - Huber and Hurni in 2022 report on 7 patients undergoing SLNB by vNOTES through the retroperitoneal approach in addition to hysterectomy⁸
- The 2021 Consensus on safe implement of vNOTES study⁹ agreed that “ The current evidence only supports the use of vNOTES for benign indications. There is currently insufficient data on the widespread use of vNOTES in an oncologic setting except for in the hands of expert vNOTES surgeons and in a trial setting.”

Our case series

- Part of a larger case series of patients undergoing vNOTES for all reasons
- 11 patients with Grade 1 or 2, Stage 1A Endometrial Cancer underwent vNOTES Hysterectomy + BSO +/- Omental biopsy and washings
- Lymph node biopsy and dissection was not undertaken in line with current UK practice
- Of these cases
 - 1 significant complication, a bladder injury which was repaired vaginally with good long term recovery
 - 1 conversion to TLH BSO due to inadequate cervical descent
 - The average operation time and hospital stay was comparable to TLH BSO in the same unit (on average day 1 discharge, with no patients staying longer than 2 days (day case hysterectomy not offered locally))



Conclusions

- vNOTES appears to be a safe and effective technique for treatment of stage 1A Endometrial Cancer
- This can be implemented within a district general hospital setting
- Randomised controlled trials are ongoing for vNOTES in general
 - There is a need to look at cancer as a part of this
- Continued submission of cases to the international registry will aid the progress of vNOTES in general¹⁰

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