



Surgical Film

Pelvic lymphadenectomy by vaginal natural orifice transluminal endoscopic surgery (vNOTES) for early-stage endometrial cancer



Soo Hyun Oh¹, Soo Jin Park¹, Eun Ji Lee, Ga Won Yim^{*,2}, Hee Seung Kim^{*,2}

Department of Obstetrics and Gynecology, Seoul National University College of Medicine, Seoul 03080, Republic of Korea

HIGHLIGHTS

- Vaginal Natural Orifice Transluminal Endoscopic Surgery (vNOTES) has been introduced to treat benign gynecologic diseases.
- vNOTES is also feasible for treating early-stage endometrial cancer.
- Pelvic lymphadenectomy can be performed by vNOTES using conventional laparoscopic instruments.

ARTICLE INFO

Article history:

Received 12 November 2018
Received in revised form 26 December 2018
Accepted 2 January 2019
Available online 11 January 2019

Keywords:

Natural orifice transluminal endoscopic surgery
Lymphadenectomy
Endometrial cancer

Abstract

Objective

Feasibility of vaginal natural orifice transluminal endoscopic surgery (vNOTES) has been reported for benign gynecologic diseases [1]. However, there is a limitation to applying vNOTES for gynecologic cancer surgery such as lymphadenectomy due to the difficulty in angulation and lack of adequate instruments [2]. Herein, we introduce pelvic lymphadenectomy by vNOTES for early-stage endometrial cancer.

Methods

A 59-year-old woman was referred for grade 2 endometrioid carcinoma confirmed on endometrial biopsy performed due to prolonged vaginal bleeding. Preoperative imaging studies showed a 2.7 cm sized

endometrial tumor invading less than 50% of the myometrium with no evidence of lymph node metastasis. Thus, staging operation by vNOTES was performed.

Results

We opened the vesicouterine and rectouterine pouches after circumferential incision of the vaginal mucosa around the cervix. Next, we inserted the glove port through the vagina for vNOTES after resecting bilateral uterosacral ligaments. For hysterectomy, bilateral parametrium, uterine arteries, bladder pillars and infundibulopelvic ligaments were resected. Thereafter, we performed pelvic lymphadenectomy as follows. First, we identified the external iliac vessels and performed downward dissection of the external iliac lymph nodes. After confirming the ureter, we performed upward dissection of the external iliac lymph nodes, and then identified the umbilical artery. Next, we dissected the obturator lymph nodes after identifying the obturator nerve (Fig. 1). A total of 20 pelvic lymph nodes were retrieved. The final pathologic report showed stage IA, grade 2 endometrioid adenocarcinoma, suggesting low risk endometrial cancer.

Conclusion

Pelvic lymphadenectomy by vNOTES may be feasible for early-stage endometrial cancer.

Acknowledgement

This work was supported by grants from the Seoul National University (No. 800-20170249, 800-2018201), the Korean Health Technology R&D Project, Ministry of Health and Welfare (No. HI17C0929), and Korean Gynecologic Oncology Group (No. KGOG-SNU-005).

Conflict of interest

The authors have no conflict of interest.

* Corresponding authors at: Department of Obstetrics and Gynecology, Seoul National University College of Medicine, 101 Daehak-Ro Jongno-Gu, Seoul 110-744, Republic of Korea.

E-mail addresses: gawonyim@gmail.com (G.W. Yim), bboddi0311@gmail.com (H.S. Kim).

¹ Both authors contributed to this article as first authors.

² Both authors contributed to this article as corresponding authors.

Author contribution

Hee Seung Kim & Ga Won Yim designed the current surgical film. Hee Seung Kim performed the surgery, and Ga Won Yim collected the data in this article. Soo Hyun Oh and Soo Jin Park made the film with narration, and Eun Ji Lee corrected the surgical film and drafted this article. Hee Seung Kim & Ga Won Yim approved the manuscript finally.

Appendix A. Supplementary data

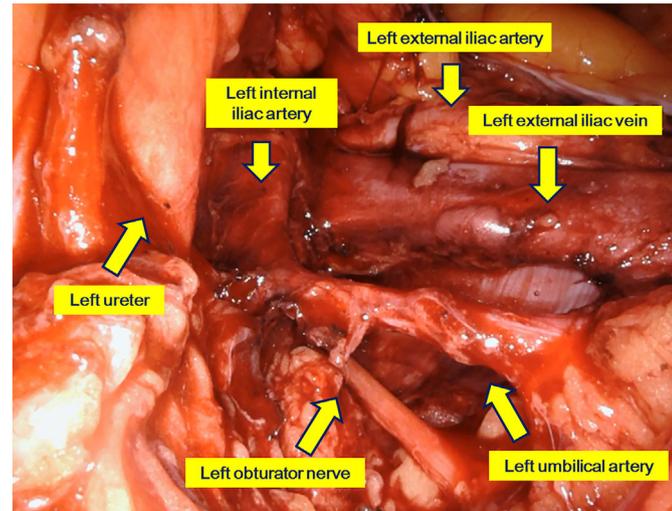


Fig. 1. Postoperative view after left pelvic lymphadenectomy using vaginal natural orifice transluminal endoscopy (vNOTES).

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ygyno.2019.01.003>.

References

- [1] J. Baekelandt, P.A. De Mulder, I. Le Roy, C. Mathieu, A. Laenen, P. Enzlin, S. Weyers, B.W. Mol, J.J. Bosteels, Postoperative outcomes and quality of life following hysterectomy by natural orifice transluminal endoscopic surgery (NOTES) compared to laparoscopy in women with a non-prolapsed uterus and benign gynaecological disease: a systematic review and meta-analysis, *Eur. J. Obstet. Gynecol. Reprod. Biol.* 208 (2017) 6–15.
- [2] Tantitamit, C.L. Lee, Application of sentinel lymph node technique to transvaginal natural orifices transluminal endoscopic surgery (NOTES) in endometrial cancer, *J. Minim. Invasive. Gynecol.* (2018) <https://doi.org/10.1016/j.jmig.2018.10.001> (Epub ahead of print).