



Surgical film

## Fertility-sparing radical resection of juvenile clear cell adenocarcinoma of the cervix by pneumovaginal endoscopic surgery

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### ABSTRACT

Vaginoscopy has been mainly used diagnostically due to the lack of adequate equipment for performing complicated surgeries (Johary et al., 2015). However, herein, we report therapeutic vaginal endoscopic surgery (pneumovaginoscopy) for secondary malignant vaginal tumors using the vNOTES technique and devices (Kita et al., 2021; Yokoe et al., 2022).

To our knowledge, this report and surgical video demonstrate the first case of successful fertility-sparing R0 tumor resection of a rare primary cervical clear cell adenocarcinoma using pneumovaginoscopy.

A 12-year-old girl was referred to our outpatient clinic with a chief complaint of a genital tumor and possible clear cell carcinoma on biopsy. There was no history of diethylstilbestrol exposure. MRI and CT images suggested a polypoid cervical tumor without metastatic lesions. Therefore, we performed therapeutic pneumovaginoscopic surgery with diagnostic laparoscopy and hysteroscopy.

The cervical tumor was resected completely, and hysteroscopy and laparoscopy revealed no abnormalities. The total surgical time was 123 min, and the blood loss volume was minimal. R0 resection was achieved microscopically.

Postoperatively, we performed a partial cervical resection around the first surgical scar to confirm no residual tumor.

There were no postoperative complications, and a 2-year follow-up revealed no recurrence.

The standard treatment for early-stage cervical cancer (IA2-IB1) remains radical hysterectomy with pelvic lymphadenectomy. However, fertility-sparing minimally invasive surgery has recently been introduced for clear cell adenocarcinoma of the cervix (Su et al., 2020). Our report supports the possibility of this minimally invasive surgery under exceptional conditions. This study was approved by the ethics committee of Kansai Medical University. Written and signed informed consent was obtained from the patient's legal guardian.

#### Informed Consent.

Written informed consent was obtained from the patient's guardian for publication of this case report and accompanying images.

#### CRedit authorship contribution statement

**Masato Kita:** Conceptualization, Project administration, Writing – original draft. **Yuki Yasuhara:** Project administration. **Genichiro Sumi:** Methodology. **Takuya Yokoe:** Methodology. **Yusuke Butsuhara:** Methodology. **Yoji Hisamatsu:** . **Hidetaka Okada:** Supervision.

#### Appendix A. Supplementary material

Fertility-sparing radical resection of juvenile clear cell adenocarcinoma of the cervix using pneumovaginal endoscopic surgery. Supplementary data to this article can be found online at <https://doi.org/10.1016/j.gore.2023.101135>.

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