



Research Letter

Hysteroscopic detection of endocervical adenocarcinoma

Cindy Hsuan Weng^a, Angel Chao^a, Shir-Hwa Ueng^b, Shih-Ming Jung^b, Ren-Chin Wu^b, Chin-Jung Wang^{a,*}^a Department of Obstetrics and Gynecology, Chang Gung Memorial Hospital Linkou Medical Center, Taoyuan, Taiwan^b Department of Anatomic Pathology, Chang Gung Memorial Hospital Linkou Medical Center, Taoyuan, Taiwan

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Dear Editor,

A 39-year-old woman, gravida 2 para 2, who had normal annual Pap smears, came to the clinic for further management due to positive human papillomavirus (HPV) 16. She had no abnormal uterine bleeding. Colposcopic examination was unsatisfactory: the exocervix was smooth, but there were areas of faint acetowhite and fine punctation at the endocervix (Fig. 1A). A biopsy was obtained with a report of atypical glandular hyperplasia that demonstrated strong staining for estrogen receptor and progesterone receptor; the sample was also diffusely positive for p16. Sonography and hysteroscopy were arranged due to indeterminate cervical or endometrial lesions. Sonography revealed an endocervical echogenic lesion measured 1.67 cm (Fig. 1B). A biopsy was obtained via office hysteroscopy, showing adenocarcinoma *in situ* (AIS) with the display of lesion necrosis (Fig. 1C). Transcervical resection-based endocervical excision was performed, and it demonstrated well-differentiated endocervical adenocarcinoma (EC) which disclosed features of columnar nuclei with increased apoptotic bodies and luminal mitotic figures (Fig. 1D). The tumor was immunostained focally in the luminal areas for carcinoembryonic antigen, but was negative for vimentin. In the meantime, both cervical conization and endometrial biopsies were negative for malignancy. Subsequently, the patient received radical hysterectomy in which the final pathology revealed residual AIS. EC was diagnosed as Federation of Gynecology and Obstetrics (FIGO) stage IB1.

EC accounts for 20%–25% of cervical carcinoma (CC), and the incidence has been increasing recently [1]. The most common type of CC is the usual type and is associated with HPV-16 or HPV-18 [2].

AIS is the precursor of cervical adenocarcinoma [2]. Conization either by a cold knife cone biopsy or loop electrosurgical excision procedure is usually performed for establishing cervical AIS [3]. However, hysterectomy is considered the definitive treatment for AIS because it tends to be multifocal and located at the high endocervix that results in residual diseases after conization [4,5]. Furthermore, there is a possibility of the co-existence of occult cervical adenocarcinoma [4,5].

Office-based hysteroscopy is useful to confirm the lesion shown on sonography when initial exocervical biopsy is equivocal for dysplastic histology. Target biopsies can be performed if suspicious lesions are observed during the examination. Diagnostic hysteroscopes are available in rigid and flexible models that allow visualization of the endocervical canal and endometrial cavity. However, the manipulation of jaws of grasping forceps in endocervical canal is more demanding than the endometrial cavity because of the narrow diameter, especial for lesions with firm consistency. An optimal panoramic view of the endocervical canal can be obtained using a continuous-flow, 26F resectoscope with a 12-degree telescope while the debris and bloody fluid exit through the outflow port. Subsequently, adequate endocervical lesions can be obtained and bleeding be controlled under direct visualization with an electrosurgery [6].

This case highlights that traditional evaluation such as negative histology on conization specimens was not reassuring and further evaluation should be undertaken on suspicious clinical settings. For instance, HPV16 positivity was detected on primary screening although annual Pap smears were normal and atypical glandular hyperplasia was found on initial exocervical biopsy. EC is easily missed in high endocervix, and with the aid of histological and immunological analyses, the detection of hysteroscopic-guided endocervical excision can lead to a correct diagnosis.

* Corresponding author.

E-mail address: wang2260@gmail.com (C.-J. Wang).

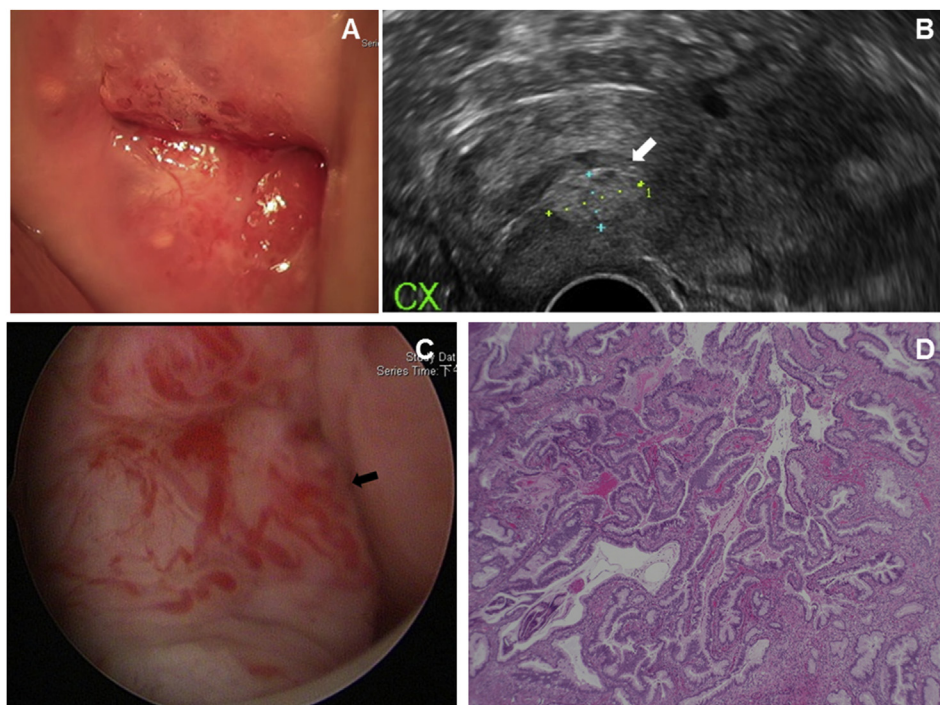


Fig. 1. A. Colposcopic examination demonstrated smooth exocervix but with areas of irregular contour and fine punctation at the endocervix. B. Sonography revealed an echogenic endocervical lesion measuring 1.67 cm (arrow). C. Hysteroscopy showed a protruding mass with prominent vessels at the endocervix (arrow). D. The glandular epithelia showed nuclear hyperchromatism, elongation, and pseudostratification (H&E 4x objective).

Conflict of interest

The authors declare that there are no conflicts of interest.

Details of ethics approval

This study has ethical approval from Institution Review Board of Chang Gung Memorial Hospital (no. 201801866B0).

References

- [1] Smith HO, Tiffany MF, Qualls CR, Key CR. The rising incidence of adenocarcinoma relative to squamous cell carcinoma of the uterine cervix in the United States—a 24-year population-based study. *Gynecol Oncol* 2000;78:97–105.
- [2] Kurman RJ, Carcangiu ML, Herrington CS, Young RH. WHO classification of tumours of female reproductive organs. 4th ed. 2014.
- [3] Cohen PA, Brand A, Sykes P, Wrede DCH, McNally O, Eva L, et al. Excisional treatment in women with cervical adenocarcinoma in situ (AIS): a prospective randomised controlled non-inferiority trial to compare AIS persistence/recurrence after loop electrosurgical excision procedure with cold knife cone biopsy: protocol for a pilot study. *BMJ Open* 2017;7: e017576.
- [4] Denehy TR, Gregori CA, Breen JL. Endocervical curettage, cone margins, and residual adenocarcinoma in situ of the cervix. *Obstet Gynecol* 1997;90:1–6.
- [5] Costales AB, Milbourne AM, Rhodes HE, Munsell MF, Wallbillich JJ, Brown J, et al. Risk of residual disease and invasive carcinoma in women treated for adenocarcinoma in situ of the cervix. *Gynecol Oncol* 2013;129: 513–6.
- [6] ACOG technology assessment No. 13: hysteroscopy. *Obstet Gynecol* 2018;131: e151–6.