



Case Study



Colposcopic Findings of Adenocarcinoma *in Situ*

Kenneth D. Hatch, MD

The colposcopic findings of glandular lesions are often difficult to identify. The current American Society of Coloscopy and Cervical Pathology (ASCCP) guidelines for atypical glandular cells (AGC) require colposcopic evaluation and directed biopsies, endocervical curettage, and D&C for women over 35 years of age. The two primary findings are (1) a wide area of eversion and (2) ginger root-like vessels.

Unlike squamous intraepithelial lesions (SIL), the glandular lesions do not produce the typical acetowhite lesion. The reason is that the glandular lesions do not produce a surface epithelium with dense nuclei like the squamous lesions. Instead, the surface is composed of glandular cells and blood vessels.

Approximately 40% of adenocarcinoma *in situ* (ACIS) will have an associated SIL. The colposcopist usually identifies the SIL with a directed biopsy and then proceeds to a loop electrosurgical excision (LEEP). The LEEP will find the ACIS, or in some cases, an early adenocarcinoma.

Often the margins are positive and a treatment dilemma will ensue. If the patient wants further childbearing with an ACIS diagnosis, negative margins are mandatory. This means a repeat cone is often necessary.

The following colposcopy photographs illustrate some examples of ACIS and early adenocarcinoma.

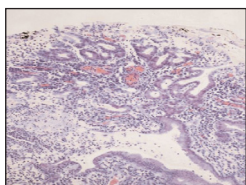


Figure 1. Adenocarcinoma in situ with abnormal glands at the surface. The lesion appears red due to lack of surface epithelium. Blood vessels are just under the surface.

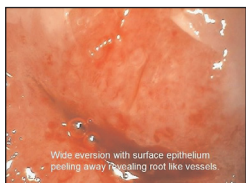


Figure 2. Wide eversion with surface epithelium peeling away revealing root-like vessels.

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Dr. Kenneth D. Hatch graduated from the University of Nebraska School of Medicine in 1971. In 1976, after two years in the Air Force, he finished his residency in obstetrics and gynecology at the University of Alabama at Birmingham. Dr. Hatch performed a subspecialty fellowship in gynecologic oncology at the University of Alabama at Birmingham and is board-certified in obstetrics and gynecology with a subspecialty certification in gynecologic oncology.

Dr. Hatch has over 160 publications in peer-reviewed scientific journals, including *Gynecologic Oncology* and the *American*

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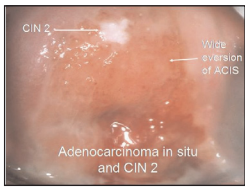


Figure 3. Cervical intraepithelial lesions are found in 40% of adenocarcinoma *in situ*.

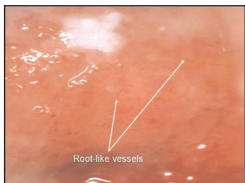


Figure 4. Higher magnification of the patient in Figure 3 shows the root-like vessels in the area of eversion.

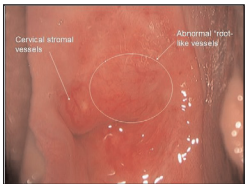


Figure 5. Women with AGC Pap smear. Colposcopic photograph shows cervical stromal vessels over a nabothian cyst and abnormal root-like vessels.

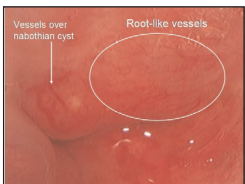


Figure 6. Higher magnification of patient in Figure 5.

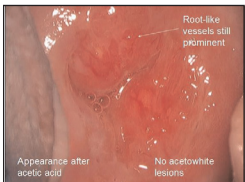


Figure 7. Appearance of the cervix of patient in Figures 5 and 6 after application of acetic acid. There is no acetowhite lesion seen.

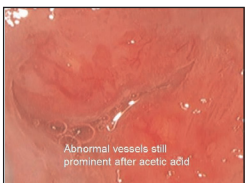


Figure 8. Higher magnification of cervix in Figure 7. Abnormal vessels are still prominent in the area of eversion.

Journal of Obstetrics and Gynecology. He is the gynecology editor for the Journal of Surgical Oncology and the associate editor for the Journal of Lower Genital Tract Disease. He has served as president of the American Society for Colposcopy and Cervical Pathology, president of the Society of Gynecology Oncologists, and vice president of the Society of Pelvic Surgeons. Dr. Hatch has held numerous other offices in professional societies and the American College of Obstetrics and Gynecology. He served as Chairman of the Department of Obstetrics and Gynecology at the University of Arizona from 1996 to 2005 and now heads the Division of Gynecologic Surgery.

Questions

1. A 28-year-old woman who has atypical glandular cell (AGC) cytology is referred and scheduled for a colposcopic exam. Which of the following findings might be seen?

- A. Wide eversion
- B. Ginger root-like abnormal vessels
- C. CIN
- D. All of the above

Answer: D

Explanation: The findings of ACIS are a wide eversion with ginger root-like vessels. CIN is associated in 40% of the lesions.

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2. During the colposcopic exam, the lesions in Figures 3 and 4 are visible. Which of the following should not be performed?

- A. A biopsy of the acetowhite lesion
- B. A biopsy of the eversion area
- C. A LEEP
- D. An ECC

Answer: C

Explanation: You should perform biopsies of the acetowhite lesion and the area of eversion. An ECC should be done to evaluate for a more significant lesion higher in the canal. A LEEP should not be done. If ACIS is found on the biopsies the patient should have a cone.

Reference

Shingleton HM, Gore H, Bradley DH, Soong SJ. Adenocarcinoma of the cervix. I. Clinical evaluation and pathologic features. *Am J Obstet Gynecol.* April 1,1981;139(7):799-814.

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