

# Home Study Course: Autumn 2000

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■ **Objective:** The Home Study Course is intended for the practicing colposcopist or practitioner who is seeking to develop or enhance his or her colposcopic skills. The goal of the course is to present colposcopic cases that are unusual or instructive in terms of appearance, presentation, or management, or that demonstrate new and important knowledge in the area of colposcopy or pathology. Participants may benefit from reading and studying the material or from testing their knowledge by answering the questions.

■ **ACCME Accreditation:** The American Society for Colposcopy and Cervical Pathology (ASCCP) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians. The ASCCP designates this continuing medical education activity for 1 credit hour in Category I of the Physician's Recognition Award of the American Medical Association. Credit is available for those who choose to apply. The Home Study Course is planned and produced in accordance with the ACCME's *Essential Areas and Elements*.

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## CASE

A 25-year-old woman, G1P1, with normal annual Papanicolaou (Pap) smears for the past 6 years, presents for evaluation because of post-coital bleeding of one-month duration. She has been using oral contraceptive pills since her delivery 4 years ago.

## Question 1

The patient's Pap smear was obtained by conventional sampling. Examining Figure 1, the Pap smear diagnosis is:

- Atypical squamous cells of undetermined significance (ASCUS)
- Atypical glandular cells of undetermined significance (AGUS)
- Low-grade intraepithelial lesion (LGSIL)
- High-grade intraepithelial lesion (HGSIL)
- Squamous cell carcinoma

## Question 2

Based on the Pap smear result, the patient is scheduled for colposcopy. Cervical and vaginal STD testing is negative. The colposcopic findings are viewed after the

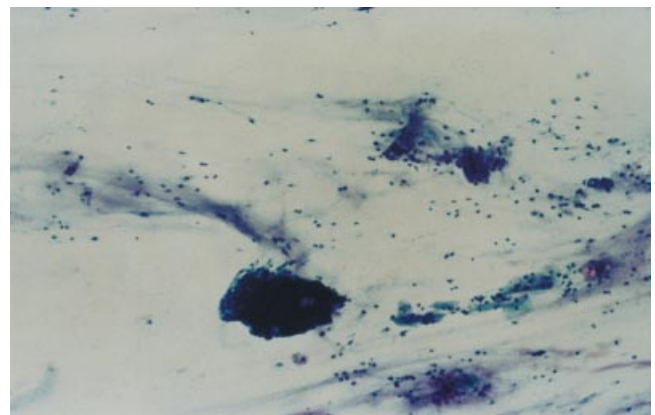


Figure 1.

application of 5% acetic acid. Your colposcopic impression (Fig. 2) is most consistent with a diagnosis of:

- Squamous metaplasia
- Low-grade cervical intraepithelial neoplasia (CIN1)
- High-grade cervical intraepithelial neoplasia (CIN2-3)
- Squamous cell carcinoma
- Adenocarcinoma in situ

### Question 3

You obtain a cervical biopsy and perform an endocervical curettage (ECC). Results of the colposcopically directed biopsy (Fig. 3) of the lesion depicted at 12 o'clock in Figure 2 are most consistent with:

- Squamous metaplasia
- Low-grade cervical intraepithelial neoplasia (CIN1)
- High-grade cervical intraepithelial neoplasia (CIN3)
- Adenocarcinoma in situ
- Squamous cell carcinoma

### Question 4

The histologic findings from the ECC reveal (Fig. 4):

- Normal endocervical epithelium
- Microglandular hyperplasia
- Adenocarcinoma in situ
- Adenocarcinoma
- Squamous cell carcinoma

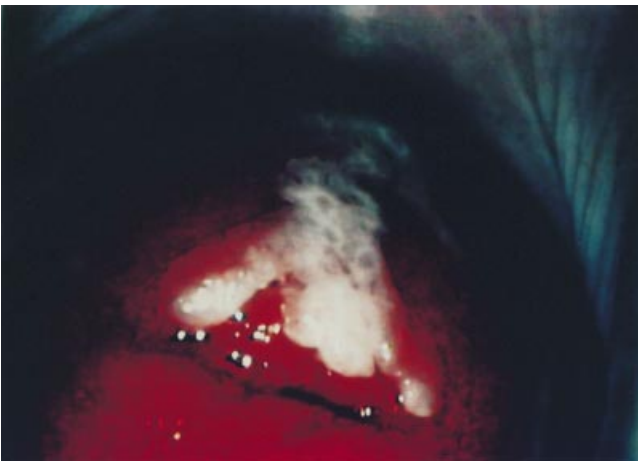


Figure 2.

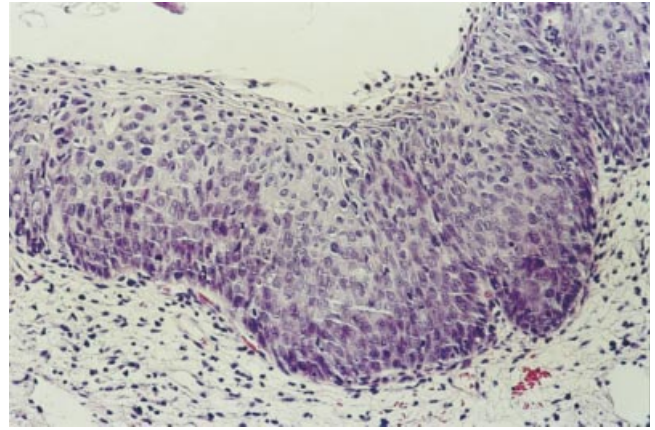


Figure 3.

### Question 5

Based on the cytologic findings and histologic results of the cervical biopsy and the ECC, the next step in management of this patient is:

- Discuss the results with the pathologist
- Repeat cytology in 4 to 6 months
- Simple electrosurgical excision
- Cold-knife conization
- Simple hysterectomy

### Question 6

Figure 5 is a section of the surgical specimen after surgery. Your diagnosis is:

- CIN3
- Adenocarcinoma in situ

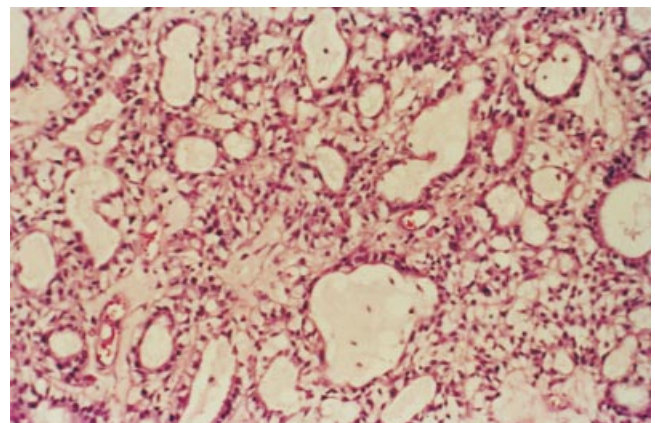


Figure 4.

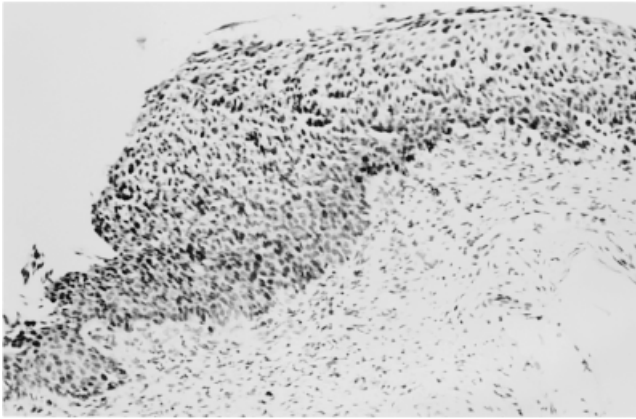


Figure 5.

- c. Invasive squamous cell cancer
- d. Adenocarcinoma

### Answers

1. *b*  
Cytology reveals atypical glandular cells of undetermined significance (AGUS). The cytology report did not specify a subclassification of “favor reactive or neoplastic” diagnosis. According to the Bethesda System, AGUS Pap smears are defined as glandular cells with nuclear atypia “that exceeds obvious reactive or reparative changes but lacks unequivocal features of invasive adenocarcinoma.” In this smear, the cells exhibit nuclei that are irregular and enlarged, but there is no prominent hyperchromasia, decrease in cytoplasm, or nuclear crowding. The cytological diagnosis would be more likely to favor a reactive process. It has been shown that AGUS smears are more likely to be confirmed histologically as preinvasive or invasive squamous lesions than preinvasive or invasive glandular lesions.
2. *c*  
Colposcopy reveals a dense, aceto-white lesion that appears to override the columnar epithelium. The lesion is completely visible on the transformation zone, is contiguous with the squamocolumnar junction, and does not extend into the endocervical canal. The lesion is so dense it appears raised and the border with the normal columnar epithelium is very sharp. The lesion retained the aceto-whiteness for an extended period of time. There is no evidence of abnormal or atypical vessels. The lesion extends peripherally at 12 o’clock towards the native squamous epithelium. The dense, aceto-white epithelium is not consistent with squamous metaplasia, although the lesion extends over the columnar epithelium. The colposcopic impression would include suspicion for adenocarcinoma in situ (AIS), which has been described as fused villi overriding the columnar epithelium (often seen as discrete patches of various sizes) and resembling an immature transformation zone. Atypical vessel patterns are common in AIS lesions. Because the lesion is contiguous with the SCJ, vessels are absent and the lesion is not divided into discrete patches, preinvasive squamous disease is the likely diagnosis.
3. *c*  
The histology of the lesion depicted in Figure 2 is consistent with CIN3. The nuclei of the basaloid cells are large and hyperchromatic and the cytoplasm is scant. The abnormal cells occupy the full thickness of the squamous epithelium. There are no cells in this histologic sample that represent invasive squamous disease, AIS, or invasive adenocarcinoma.
4. *b*  
The histologic diagnosis of the endocervical sample is microglandular hyperplasia, a response to progesterone stimulation. Microglandular hyperplasia lacks significant nuclear atypia, and few, if any, mitotic figures are usually present. Microglandular hyperplasia, as opposed to adenocarcinoma in situ, is characterized by uniform, small, closely packed nuclei.
5. *a*  
Based on the diagnosis of CIN3 and an ECC that is consistent with microglandular hyperplasia, a discussion with the pathologist should occur. The cytology and histology should be compared to ensure that the source of the atypical glandular cells has been identified. The cytologic diagnosis of AGUS may be explained by the presence of microglandular hyperplasia. Asking the pathologist to review the original cytologic sample is prudent before a decision is made about treatment. A diagnosis of AGUS, adenocarcinoma cannot be ruled out, occurs in about 10% of women who are subsequently shown to have histologic microglandular hyperplasia. The decision in this case is whether the squamous lesion can be treated with a simple excisional procedure or whether a conization should be performed because of suspected glandular disease. It is doubtful there is squamous disease in the endocervical canal because the colpos-

copy is satisfactory. Given the cytologic diagnosis, the presence of an endocervical glandular lesion is possible, and the pathology should be reviewed prior to a decision about treatment.

6. *a*

Because the cytologic diagnosis is explained by the presence of microglandular hyperplasia and the ECC did not reveal preinvasive or invasive glandular disease, a simple electrosurgical excision could be performed. Additionally, some colposcopists would elect to perform endometrial sampling prior to definitive treatment because of the complaint of post-coital bleeding and AGUS diagnosis even if the cytology did not favor neoplasia. In this case, endometrial histology was normal. The surgical diagnosis was CIN3 and margins were clean. Repeat ECC at the time of the excision revealed microglandular hyperplasia without evidence of a more serious abnormality. A

cold-knife conization is not necessary because the pathologist felt that the atypical glandular cells were consistent with microglandular hyperplasia and the ECC showed no markedly atypical cells. A hysterectomy is clearly not indicated because of the absence of invasive disease or a high-grade precursor of adenocarcinoma.

#### SUGGESTED READINGS

1. Dinh TV, Haque M, Gracia JM et al. Papanicolaou smears of atypical glandular cells of undetermined significance: Histological correlations and suggestions for management. *J Lower Genit Tract Dis* 1999;3(2):73–76.
2. Wright VC. Colposcopy of adenocarcinoma in situ and adenocarcinoma of the uterine cervix: Differentiation from other cervical lesions. *J Lower Genit Tract Dis* 1999;3(2):83–97.
3. Cox JT. ASCCP practice guidelines: Management of glandular abnormalities in the cervical smear. *J Lower Genit Tract Dis* 1997;1:41–45.