Problem Based Learning in Cytology

Diagnosis and Management of Glandular Lesions on Pap Test

Learning Objectives:

1. List the types of cells normally seen on a Pap Test
2. Recognize how and when endometrial cells are reported
3. Identify a variety of glandular cell abnormalities detected on Pap Test
4. Analyze the criteria for distinguishing normal and abnormal glandular cell findings that may be seen on Pap Test
5. Summarize the management guidelines for glandular cell abnormalities detected by Pap Test

Select Resources:

Case Presentation:
You are the Cytopathology fellow in a very busy City Hospital affiliate of a large Medical School. You have 45 Pap Test slides waiting for your review. Your attending tells you that you have to review all of these slides with the rotating pathology resident. You see that you have four cases with similarities and you are wondering if you are beginning to overcall some of these cases. To top it all, the rotating resident is beginning to get very confused and slow you down with questions. He states that all four cases you are pointing out to him as abnormal look very similar. He wants to know how you can differentiate one from the other and if it really makes a difference in management since the Pap Test is just a screening test. He says “why don’t we call them all “atypical” and reflex them for human papilloma virus (HPV) testing?” You go back to look into these cases in more depth and explain to him the importance of accurate cytologic classification.

Case 1: A 45-year-old woman with screening Pap test; no prior abnormals noted. The date of her last menstrual period is not indicated on the requisition form.

Figure 1. A. Surepath Pap stain, 60 x. B. Surepath Pap stain, 60X. C. Surepath Pap stain, 60x.
**Case 2:** A 49-year-old woman presented with vaginal spotting. She states she had several prior abnormal Pap tests with positive high risk HPV test but she did not follow up with her gynecologist.

Figure 2. A. SurePath Pap stain, 20x. B. SurePath Pap stain, 40x. C. SurePath Pap stain, 60x. D. SurePath Pap stain, 60x.
Case 3: A 66-year-old woman with postmenopausal bleeding for 3 months. No other relevant history provided.

Figure 3. A. SurePath Pap stain, 40x. B/C. SurePath Pap stain, 60x.
Case 4: A 66-year-old woman presenting for routine Pap test screening. She has had chemotherapy and radiation therapy for locally advanced lung cancer. She has been disease free for 13 months.

![Figure 4: A. SurePath Pap stain, 40x. B. SurePath Pap stain, 60x. C. SurePath Pap stain, 60x](image)

**Problem Statement:**

1. How should the Pap test from Case 1 be reported? Is this an abnormal finding? How should the clinician manage her?
2. Which patient would benefit from reflex HPV testing?
3. Based on the Bethesda /ASCCP management guidelines, which case needs colposcopy with tissue sampling for definitive diagnosis/treatment?
4. Which case would benefit from additional testing for a more definitive diagnosis? What kind of testing would you ask for?

Identify at least 4 learning objectives related to the topic and case presentation that you think will be required to solve this problem.

1.
2.
3.
4.
Identify possible resources to obtain information related to these learning objectives.

1.

2.

3.

Once you’ve completed these tasks, assign each person in the group a concept to review, and break for independent study.
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Review the learning objectives you created last session. Each person in the group should present the summary of their assignment. Provide copies of relevant articles as needed.

Readiness Questions:

These questions are designed to make sure you have reviewed the material fully, and covered all aspects of the topic. Review the questions in a group, and attempt to fully answer them.

1. How do we determine the presence of endometrial cells on a Pap test as being a normal or an abnormal finding? Explain based on age, menstrual and menopausal status of a woman.

2. How are atypical glandular cells reported? Is it necessary to subclassify based on cell type? Is it always possible to subclassify?

3. What is the current management guidelines for atypical glandular cells?
4. Is Pap test used for screening for adenocarcinoma? What different types of adenocarcinomas can be detected on Pap test screening? How do they differ in appearance?

**Return to the Problem:**

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Is there any additional information would you like to know regarding these cases that would help your interpretation?