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Master Colposcopy



What is Your Colposcopic Impression?

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The colposcopic prediction of histology is based upon visual inspection of blood vessel configurations, surface contour, color tone and lesion demarcation before and after the application of acetic acid and/or iodine. Various magnifications are used. Many benign, premalignant and malignant squamous conditions have identifiable characteristics. Glandular lesions have less widely appreciated but clearly recognizable features. Colposcopy cannot differentiate between adenocarcinoma in situ and adenocarcinoma. The existence of colposcopic mimics, in which completely different histology produces similar or virtually identical colposcopic appearances, complicates the situation.

Below are three case studies demonstrating some of these principles.

Case 1. A 21 year old woman was investigated colposcopically for cytology reported as low-grade squamous intraepithelial lesion. The images of her cervix in Figure 1, a lower magnification view, and Figure 2, a higher magnification view, were taken after acetic acid application.

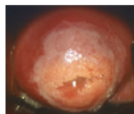


Figure 1. Lower magnification view

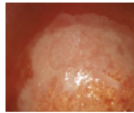


Figure 2. Higher magnification view

What is your colposcopic impression?

- 1a. Herpes simplex viral infection
- 1b. Cytomegalovirus infection
- 1c. Human papillomavirus infection, CIN 1/2 (mild dysplasia/moderate dysplasia)
- 1d. Candida infection

Case 2. A 37 year old woman was assessed in the colposcopy clinic for cytology reported as atypical endocervical glandular cells – favor neoplasia. The image in Figure 3 was taken before acetic acid application and the one in Figure 4 was taken after its application.

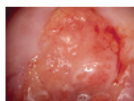


Figure 3. Before acetic acid application

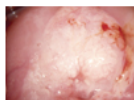


Figure 4. After acetic acid application

What is your colposcopic impression?

- 2a. Adenocarcinoma in situ/adenocarcinoma
- 2b. Metaplasia
- 2c. Squamous cell cancer
- 2d. Condylomata

Case 3. A woman presented for colposcopy with islands or bouquets of acetowhite formations lying over columnar epithelium. These are indicative of what colposcopic finding? The image in Figure 5 is at a low magnification and the one in Figure 6 is at a higher magnification.

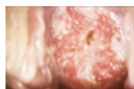


Figure 5. Low magnification

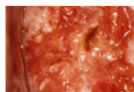


Figure 6. High magnification

What is your colposcopic impression?

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He subspecialized in surgical gynecologic oncology. He has published extensively in the peer-reviewed literature and has contributed chapters to a variety of textbooks and developed numerous CDs on colposcopy and lower genital tract disease. He has taught at hundreds of postgraduate courses. He has lectured in over 30 different countries (some of them many times).

Dr. Wright has received national and international scientific awards, most notably the American Society for Colposcopy and Cervical Pathology's Distinguished Scientific Achievement Award and his university's Dean's Award of Excellence for Innovation in connection with his introduction of carbon dioxide laser surgery to gynecology in Canada. He was honored with ACOG's Commemorative Medal for Excellence in Teaching. Dr. Wright's department recently established the V. Cecil Wright Lecture to be given at its annual oncology day.

Recently, Dr. Wright served as the colposcopy trainer for GlaxoSmithKline Biologicals – Belgium in their standardization program for the phase III trials of their HPV vaccine. He has been an educational consultant and provider of educational materials to Merck Frosst Canada regarding the development of their HPV vaccine. Dr. Wright continues writing, teaching, and serving as an invited speaker.

How would you rate our content?
How would you rate our content?

would you rate our content?

- 3a. Adenocarcinoma in situ/adenocarcinoma
- 3b. Immature metaplasia
- 3c. Squamous cell cancer
- 3d. CIN 3 (severe dysplasia/carcinoma in situ)

References

- 1. Coppleson M, Pixley E, Reid B. A Scientific and Practical Approach to the Cervix in Health and Disease. Springfield, IL: Charles C. Thomas, 1971.
- 2. Kolstad P, Staff A. Atlas of Colposcopy. Universitetsforlaget: Oslo-Bergen-Tromsø, 1972.
- 3. Wright VC. Colposcopy of adenocarcinoma in situ and adenocarcinoma of the uterine cervix: Differentiation from other cervical lesions. J Lower Gen Tract Dis, 1999;3:83-97

Answers

Case 1–Answer c. CIN 1/2 lesion demonstrating asperities (small, elevated spicule-like areas). They are indicative of a human papillomavirus infection. Figures 1 and 2.

Case 2–Answer a. Adenocarcinoma situ/adenocarcinoma. Biopsy was adenocarcinoma. Before acetic acid a variety of blood vessels can be seen: character writing-like, root-like and waste thread-like (tendrill-like), Figure 3. After the application of acetic acid the vessel pattern is partially lost. Acetowhite papillary structures appear with dot-like angioarchitecture in their tips (Figure 4). A similar surface contour and blood vessel patterns are also seen in condylomata.

Case 3–Answer b. Immature metaplasia. Islands of acetowhite metaplastic epithelium (bouquet-like formations) are formed by immature metaplasia, Figures 5 and 6. This variegated red and white impression mimics adenocarcinoma in situ/adenocarcinoma.

Credits

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