

Top 10 Forgotten Diagnostic Procedures

Anoscopy

David Ponka MDCM CCFP(EM) FCFP Faisal Baddar MDCM CCFP

Contraindications

Caution is needed in patients with recent anal surgery or known anal fissure.

Applications

Diagnosis of problems associated with perianal and anal discomfort and other symptoms.

Equipment necessary

- Anoscope
- Gloves
- Cotton swabs (large tip)
- Bright light source
- Lubricant

Set-up

This procedure is performed with the patient in the left lateral position and draped. It is very helpful if an assistant is available. As well, a topical anesthetic, applied 30 minutes beforehand, can reduce discomfort for the patient and increase the ease of the procedure. It is also important to discuss the procedure with the patient beforehand, as the patient is likely to feel anxious.

Procedure

1. With the patient in the left lateral position, separate the buttocks with your hands or ask the patient to pull the glutei muscles up. Make a visual assessment of the area with the patient bearing down. Look for hemorrhoids or polyp prolapses.
2. Lubricate the index finger on your gloved dominant hand with lubricant or 2% lidocaine jelly. Perform a digital rectal examination, taking note of sphincter tone and any prostate abnormalities.
3. Lubricate the anoscope and insert it into the anus completely or as far as the patient can tolerate. Ask the patient to breathe deeply and bear down slightly. Remove the obturator to examine the anal mucosa. Remove fecal matter with a swab. Observe the mucosa, the pectinate line, the vasculature, and any blood, mucus, pus, or hemorrhoidal tissue. Note that leaving the anoscope in place for 2 minutes allows any hemorrhoids to become more visible. Gently remove the anoscope, taking care to visualize all sides of the anal canal.



4. Consider taking an anal Papanicolaou smear for cytology in high-risk patients.

Evidence

Although there is little literature on anoscopy (and, arguably, the detection of gross lesions is valuable regardless of evidence), our search revealed 2 studies suggesting effectiveness of anoscopy for human papillomavirus screening using anal Pap smears. The first paper reviewed the current evidence for detection of anal squamous intraepithelial lesions and the treatment options.¹ Cytology screening yielded a 47% to 90% sensitivity rate and a 16% to 92% specificity rate for anal squamous intraepithelial lesions, although it is more sensitive in patients with HIV. The authors recommend screening HIV-positive men who have sex with men (MSM) yearly, as well as every second year for HIV-negative MSM. The second article discussed the sensitivity of anal cytology as well and found a sensitivity of 70% and a positive predictive value of 97% for histology of any grade of lesion.² It also found that cytology is more sensitive in MSM than in heterosexual men.

Diagnostic confirmation

Patients with recalcitrant or severe lesions should be referred to specialists for endoscopic confirmation with or without biopsy. Bleeding in

higher-risk individuals (including those older than 50 years of age) should not be assumed to originate from hemorrhoids, even when hemorrhoids can be seen. 🍁

Dr Ponka is Associate Professor in the Department of Family Medicine at the University of Ottawa in Ontario. **Dr Baddar** is a staff hospitalist at Pembroke Regional Hospital and a community preceptor in the Department of Family Medicine at the University of Ottawa.

References

1. Pineda CE, Welton LL. Management of anal squamous intraepithelial lesions. *Clin Colon Rectal Surg* 2001;22(2):94-101.
2. Nathan MB, Singh N, Garrett N, Hickey N, Prevost T, Sheaff M. Performance of anal cytology in a clinical setting when measured against histology and high-resolution anoscopy findings. *AIDS* 2011;23(3):373-9.



The physical examination is facing extinction in modern medicine. The Top Ten Forgotten Diagnostic Procedures series was developed as a teaching tool for residents in family medicine to reaffirm the most important examination-based diagnostic procedures, once commonly used in everyday practice. For a complete PDF of the Top Ten Forgotten Diagnostic Procedures, go to <http://dl.dropbox.com/u/24988253/bookpreview%5B1%5D.pdf>.