

The ASCUS cytology challenge: HPV testing versus colposcopy

ASCUS-LSIL Triage Study (ALTS) Group. Results of a randomized trial on the management of cytology interpretations of atypical squamous cells of undetermined significance. *Am J Obstet Gynecol.* 2003;188:1383-1392.

OBJECTIVE To compare 3 management strategies for a diagnosis of atypical squamous cells of undetermined significance (ASCUS).

CONCLUSION Human papillomavirus (HPV) testing is at least as sensitive as immediate colposcopy for detecting cervical intraepithelial neoplasia (CIN) grade 3—and refers about half as many women to colposcopy. Follow-up using repeat cytology is sensitive at an ASCUS referral threshold, but requires 2 follow-up visits and ultimately more colposcopic examinations than HPV triage.

METHOD A total of 3,488 women with community-acquired conventional cervical cytology interpreted as ASCUS were randomized to immediate colposcopy; triage based on enrollment HPV testing and liquid-based cytology, with referral to colposcopy for a finding of high-grade squamous intraepithelial lesion (HSIL); or repeat cytology at a referral threshold of HSIL (ie, conservative management).

RESULTS After 2 years, the cumulative diagnosis of CIN grade 3 was 8% to 9% in all 3 study arms. The immediate colposcopy group had a 53.6% sensitivity for CIN grade 3, versus 72.3% for HPV triage and 54.6% for conservative management. The HPV triage strategy referred 55.6% of women for colposcopy, while the conservative strategy referred 12.3%.

EXPERT COMMENTARY Since the 1991 introduction of the Bethesda System for cervical cytology classification, there has been disagreement

on the best method to further evaluate women with a diagnosis of ASCUS. Commonly proposed triage strategies are immediate colposcopy, repeat cytology, or HPV testing. The importance of determining the best method is clear, since 5 million women per year have an ASCUS finding on cervical cytology.

This study's great strength is its design and low dropout rate: a randomized prospective evaluation of a large group of women, few of whom did not complete the protocol.

This trial demonstrates that each of the 3 strategies is equally effective in detecting CIN grades 2 and 3 after 2 years. The investigators estimated that, of the women in the trial who were ultimately found to have CIN 3, HPV testing would have properly triaged 92.4% and referred 53.1% for colposcopy. Repeating cytology twice would have provided the same threshold for detecting CIN 3, but would have resulted in colposcopy for 67.1% of women.

Study findings indicate that HPV testing is an effective method to triage women with ASCUS cytology. Only 1.4% of patients who were HPV-negative at enrollment were found to have CIN 3 during the 2 years of study.

Cost considerations. Unfortunately, in this report, the ALTS group did not present any data concerning cost-effectiveness. It seems reasonable, however, that because fewer colposcopies were performed in the HPV-testing arm, this strategy would be the most efficient. Since all the triage methods were equally effective at diagnosing CIN 3, the least costly should be preferred.

High- versus low-grade lesions. It is important to note that in the repeat cytology arm (which required a high-grade cytology for triage to colposcopy), one third of women with

CIN 3 were diagnosed at the time of exit from the study by colposcopy or loop electrosurgical excision procedure that was performed due to persistent low-grade lesions. This finding calls into question the sensitivity of using high-grade histology to trigger colposcopy when following patients with ASCUS cytology.

BOTTOM LINE For women with ASCUS cervical cytology, reflex HPV testing is as efficient as immediate colposcopy or repeat cytology and is most likely less costly. Thus, it is the preferred strategy for women with ASCUS cytology.

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Does electrical stimulation aid muscle training for stress incontinence?

Goode PS, Burgio KL, Locher JL, et al. Effect of behavioral training with or without pelvic floor electrical stimulation on stress incontinence in women. *JAMA*. 2003;290:345-352.

OBJECTIVE To determine whether pelvic floor electrical stimulation (PFES) improves outcomes of multicomponent behavioral training for stress incontinence.

CONCLUSION Electrical stimulation did not significantly improve outcomes.

METHOD Two hundred community-dwelling women with stress incontinence were randomized to 1 of 3 groups for an 8-week period: 1) biofeedback-assisted pelvic floor muscle training (PFMT), home exercises, bladder control strategies, and self-monitoring with bladder diaries; 2) the same program plus home PFES (15 minutes every other day, alternating with home exercises); or 3) self-administered behavioral training consisting of a self-help booklet and bladder diaries.

RESULTS Intention-to-treat analysis revealed that frequency of incontinent episodes was reduced by 68.6% in group 1, 71.9% in group 2, and 52.5% in group 3. Attrition rates for the 3 groups were 18.2%, 11.9%, and 37.3%, respec-

tively. Efficacy analysis, which examined only those completing treatment (n = 155), showed no significant differences among the groups on reduction of incontinence episodes. Patients in the PFES group reported more satisfaction with their progress, suggesting some placebo effect.

EXPERT COMMENTARY The strength of this timely study is its design: a prospective randomized controlled trial with a large sample size and adequate power. It suffers, however, due to its short-term follow-up and a significantly greater attrition rate in the control group.

Only 2 prior studies have evaluated the effect of electrical stimulation as an adjunct to PFMT for stress incontinence. A study of 14 patients showed that the addition of electrical stimulation improved outcome of physiotherapy.¹ Another study found the addition of both biofeedback and electrical stimulation improved symptoms and muscle strength, but the study did not isolate the effects of PFES as a single adjunct.²

BOTTOM LINE Patient compliance is vital to the success of behavioral therapy. The motivated patient with adequate neuromuscular function will improve with PFMT, with or without adjunctive therapy, and thus may forego surgical intervention. Less motivated patients, those who lack awareness of pelvic floor muscles, or those with decreased pelvic floor function may achieve greater success with adjunctive therapy, be it biofeedback or PFES. Still, long-term efficacy of such therapies is not known. ■

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