Follow-up of Abnormal Gynecologic Cytology

A College of American Pathologists Q-Probes Study of 16 312 Cases From 306 Laboratories

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The article entitled “Follow-up of Abnormal Gynecologic Cytology: A College of American Pathologists Q-Probes Study of 16 312 Cases From 306 Laboratories,” by Jones and Novis,1 represents a landmark study in the ongoing effort to optimize gynecologic pathology services in the United States. The study may well prove to be the most valuable effort to date in the already distinguished efforts of the Q-Probe series.

The key finding of the study is that significantly more patients with recommendations for repeat smears received repeat smears, and significantly more patients with recommendations for colposcopy and biopsy received biopsies than did patients whose Papanicolaou (Pap) smear reports contained no recommendations. Of particular concern are the findings that almost 10% of patients with high-grade squamous intraepithelial lesion (HSIL) Pap smear findings had only repeat smears as follow-up within 1 year and that almost 9% of patients with a cytological diagnosis of cancer had another Pap smear performed as the initial follow-up procedure. Another small percentage received no follow-up at all. Such practices are at odds with consensus guidelines for follow-up of abnormal Pap smears, published both in the American College of Obstetricians and Gynecologists (ACOG) Technical Bulletin3 and by a National Cancer Institute Workshop,4 and they indicate that some practitioners still may not appreciate that the Pap smear is a screening rather than a diagnostic test. Analysis of the data indicates that well-crafted follow-up recommendations on Pap smear reports by pathologists can make a difference. The data also support the conclusion of the first Bethesda conference, which was that follow-up recommendations have merit.4 It now appears ironic that the second Bethesda Conference, led by clinicians’ suggestions, removed follow-up recommendations as a standard component of the Pap smear report.5

A topic of special concern in the Jones-Novis report is in the area of glandular abnormalities. Patients with cytologically diagnosed glandular intraepithelial lesions had less documented procedural follow-up than patients with HSIL or cancer, even though both ACOG6 and the American Society for Colposcopy and Cervical Pathology Guidelines advocate diagnostic (tissue) follow-up studies for patients with diagnostic cytological findings of glandular abnormalities. Patients with cytologically diagnosed glandular intraepithelial lesions had less documented procedural follow-up than patients with HSIL or cancer, even though both ACOG6 and the American Society for Colposcopy and Cervical Pathology Guidelines advocate diagnostic (tissue) follow-up studies for patients with diagnostic (tissue) follow-up studies for patients with diagnostic cytological findings of glandular abnormalities. Patients with cytologically diagnosed glandular intraepithelial lesions had less documented procedural follow-up than patients with HSIL or cancer, even though both ACOG6 and the American Society for Colposcopy and Cervical Pathology Guidelines advocate diagnostic (tissue) follow-up studies for patients with diagnostic cytological findings of glandular abnormalities. Patients with cytologically diagnosed glandular intraepithelial lesions had less documented procedural follow-up than patients with HSIL or cancer, even though both ACOG6 and the American Society for Colposcopy and Cervical Pathology Guidelines advocate diagnostic (tissue) follow-up studies for patients with diagnostic cytological findings of glandular abnormalities. Given the special difficulties associated with cytological interpretation of glandular lesions;7 the special challenges of accessing lesional cells, and the increasing importance of glandular neoplasms,8,9 the laissez-faire approach may no longer be good enough. Well-crafted directive follow-up suggestions could help. A tragically common scenario in cancer cases among screened patients is a significant history of repeated Pap smear abnormalities without definitive diagnostic histologic follow-up studies.10 I have personally seen many such cases in litigation.

It is worth noting that consensus clinical guidelines for follow-up of abnormal Pap smear results generally advise diagnostic follow-up studies after repeatedly abnormal Pap smears at any level of abnormality.2,3,6,11,12 The Pap smear reports in our private laboratory now routinely list these follow-up guideline references on all abnormal Pap smear reports as a reminder to the clinician. Also, our laboratory’s goal is that any patient with any level of Pap smear abnormality within the last 3 years (without intervening tissue biopsy studies) has the repeatedly abnormal Pap smear report followed by this comment: “Consider diagnostic follow-up studies, based on persistent abnormal Pap test findings.” For patients with atypical squamous cells of undetermined significance where the cytologic findings are suggestive of HSIL13,14 the goal is for the Pap smear report to contain another comment: “Cannot rule out a high-grade intraepithelial lesion; consider diagnostic colposcopically directed cervical biopsies with endocervical cur- ettings.” For other atypical squamous cells of undetermined significance reports that are not repeated abnormalities and not suggestive of HSIL, the comment “Consider repeat Pap test in 3 to 4 months” reminds the clinician both to conduct early follow-up studies and to not perform the repeat test so early that lesional sampling may be compromised.15

Even clear-cut abnormal Pap smear categories, such as low-grade squamous intraepithelial lesion (LSIL) or HSIL, may reflect nuances that could benefit from clarification or caution.
Few clinicians are aware of an earlier Q-Probe study that found that follow-up cervical biopsies disclose an undetected HSIL in 15% to 20% of patients with LSIL Pap smears. This cautionary information is now on all our LSIL reports. The same Q-Probe study noted that follow-up cervical biopsies in HSIL patients disclosed an undetected invasive malignancy in 2% of patients with HSIL Pap smears. We disclose this as a standard comment on HSIL Pap smear reports, along with a standard recommendation for colposcopically directed biopsy studies as soon as is clinically feasible. Furthermore, for any patient with suspicious clinical signs or symptoms such as postcoital bleeding, friable cervix, or visible cervical lesion or polyp, the goal is for the Pap smear report to contain the following added comment: "The Pap test is a screening test, not a diagnostic test; suspicious signs or symptoms warrant diagnostic follow-up studies, regardless of the Pap test result."

As an increasing portion of patients have their Pap smear findings followed up by allied health personnel and nongynecologist physicians who have less specialized training than gynecologists, it makes sense to provide as much clear guidance on Pap smear reports as is prudent and reasonable. Follow-up recommendations need to be well crafted and thoughtful and ideally should strive to take into account longitudinal clinical information available in the laboratory information system. Optimal use of this information in well-crafted follow-up recommendations helps risk management efforts for all involved parties—most importantly, the patient.

References