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The detection of endocervical glandular lesions is an important function of the Pap test. However, abnormal glandular cells in the Pap sample may also originate from the endometrium or from extrauterine sites. The Pap test is not intended to be a screening test for such lesions.

When suspected glandular abnormalities are identified, their accurate classification as true glandular versus squamous lesions is important for the proper evaluation and subsequent treatment (e.g., choice of excisional biopsy method versus conservative follow-up). Multiple peer-reviewed publications (including those within this abstract booklet) report on the improved ability of ThinPrep® Systems to detect glandular disease versus the conventional Pap smear. Although these studies do not consistently address sensitivity of different Pap testing methods in detecting specific types of glandular disease, the reported results are consistent with more frequent biopsy confirmation of abnormal glandular findings by the ThinPrep Pap Test compared to conventional cytology. Thus, the finding of the glandular abnormality on a ThinPrep Pap Test slide merits increased attention for definitive evaluation of potential endocervical or endometrial pathology1.

1. ThinPrep® 2000 System Instruction for Use Part No. 04141.002 Rev C.00
**DESIGN:** Although the ThinPrep Pap Test is replacing conventional Pap smears in many clinical practices, experience with the identification of glandular lesions is limited. In this study, ThinPrep cytology of glandular lesions was evaluated in a large, inner city teaching hospital with high rates of glandular abnormality.

**STUDY DESIGN:** Six months of ThinPrep diagnoses in 1998, following nearly 100% conversion of the laboratory to the ThinPrep Pap Test, were compared to January-December 1997 conventional smear diagnoses for glandular disease. Biopsy confirmation was evaluated for these cases. Findings on all biopsy-confirmed glandular cases were also compared to findings on cytology.

**RESULTS:** Similar overall rates of glandular cytology were found. For conventional smears (12 months), 46 cases were diagnosed out of 43,289 smears (0.11%). For ThinPrep cytology (six months), 36 cases were diagnosed out of 25,783 slides (0.14%, P = NS). In the year 1997, 9 biopsy-confirmed conventional smear diagnoses of adenocarcinoma in situ (AIS) or adenocarcinoma were noted versus 10 for six months of 1998 for the ThinPrep method. A statistically significant reduction in the number of miscellaneous nonglandular (squamous) biopsy diagnoses were found with ThinPrep glandular cytology (14 vs. 4 cases, P < .05). For known biopsy-confirmed glandular cases of AIS or adenocarcinoma, a statistically significant reduction in the cytology false negative rate was noted with the ThinPrep method (17 vs. 4 cases, P < .02).

**CONCLUSION:** The ThinPrep method provides more accurate diagnoses of glandular disease, with an increase in both sensitivity and specificity for glandular lesions.
Detection of endometrial adenocarcinoma with the ThinPrep Pap test.

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Abstract

The ThinPrep Pap Test (Cytc Corp., Boxborough, MA) was introduced in the Loyola University Medical Center (LUMC) Cytopathology Laboratory in March 1997. This study presents a 26-month retrospective review of the cervicovaginal specimens on all patients who had a cytologic diagnosis of adenocarcinoma either by conventional (CS) or ThinPrep (TP) methods. From March 1997 through May 1999, 16,139 conventional smears and 29,589 TP Pap tests were sent to the LUMC cytopathology laboratory. The three diagnostic glandular categories included: atypical glandular cells of undetermined significance (AGUS); suspicious for adenocarcinoma, endometrial adenocarcinoma, and adenocarcinoma; not otherwise specified (nos). Cytohistologic correlation was performed on all available cases. Since endometrial adenocarcinoma occurs most frequently in peri- and postmenopausal patients, the percentage of patients over the age of 50 was determined for each method; 4,669 (29%) of the women receiving a CS were age 50 or over and 6,839 (23%) of the women who received the TP Pap test were in this age group. Sixteen endometrial lesions were identified on cytology, one (adenocarcinoma) with the CS method and 15 (six AGUS; suspicious for adenocarcinoma, four endometrial adenocarcinomas, and five adenocarcinomas; nos) with the TP method. The one CS case had biopsy confirmation. Fourteen of the 15 TP cases (93%) were confirmed by biopsy; one (7%) case had no follow-up. The TP Pap test yielded a higher percentage of endometrial adenocarcinomas (0.05%) as compared to CS (0.01%). Traditionally, CS has not been a method for the early detection of endometrial glandular lesions. However, of the patients diagnosed as having an endometrial adenocarcinoma in this study, the TP Pap test contributed to an increase in the detection of these lesions as compared to CS. The age group for the two methods was comparable.

ThinPrep detection of cervical and endometrial adenocarcinoma: a retrospective cohort study.

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Abstract

BACKGROUND: The current study was performed to compare the accuracy of the ThinPrep trade mark Papanicoloau (Pap) test with that of the conventionally prepared Pap smear in detecting cervical and endometrial adenocarcinomas.

METHODS: The subject group consisted of all ThinPrep cases of atypical glandular cells of undetermined significance (AGCUS) or adenocarcinoma diagnosed between March 1998 and March 2000. Conventional smears collected between January 1996 and January 1998, before laboratory conversion to the ThinPrep system, comprised the control group. Histologic follow-up was obtained.

RESULTS: One hundred eighty-six (0.17%) of 112,058 ThinPrep Pap tests were interpreted as AGCUS/adenocarcinomas, compared with 77 (0.09%) of 83,464 conventional smears (P < 0.001). The overall sensitivity of a ThinPrep AGCUS/adenocarcinoma smear in detecting either cervical or endometrial adenocarcinoma was increased (72.0% vs. 41.5%; P < 0.001). The ThinPrep Pap test was more sensitive in detecting endometrial adenocarcinomas (65.2% vs. 38.6%; P = 0.010) and there was a trend for a higher sensitivity in detecting cervical adenocarcinomas (87.1% vs. 55.5%; P = 0.108).

CONCLUSION: The ThinPrep Pap test is a more sensitive method of detecting cervical and endometrial adenocarcinomas than the conventional Pap smear.

Abstract

OBJECTIVE: To review the histologic findings in patients diagnosed with “atypical glandular cells of uncertain significance, endocervical cell type” (AGUS-EC) by ThinPrep Pap Test (TPPT) or conventional Pap smear (CPS) and to evaluate the clinical value of subclassifying AGUS-EC as “favor reactive” or “favor neoplastic.”

STUDY DESIGN: All TPPT and CPS diagnosed as AGUS-EC (favor reactive, unspecified and favor neoplastic) from January 1998 through December 1999 and all available histologic follow-up (defined as endocervical curettage, cervical biopsy, cervical conization or hysterectomy obtained within six months of the time of an AGUS-EC diagnosis) were obtained from a computerized database.

RESULTS: AGUS-EC was diagnosed in 0.77% of CPS (683 of 88,825) and 0.59% of TPPT (183 of 30,968) (P = NS). There was no statistically significant difference in any of the follow-up histologic diagnoses between the CPS and TPPT groups. The majority of the follow-up biopsies demonstrated benign processes in both groups. Patients with a diagnosis of AGUS-EC “favor neoplastic” had a greater proportion of true glandular pathology as compared with AGUS-EC “unspecified” or “favor reactive” (P < .001). None of the patients with a diagnosis of AGUS-EC “favor reactive” were found to have true glandular pathology; however, a minority of them proved to have squamous pathology.

CONCLUSION: In this study there was no difference in CPS and TPPT in regard to the specificity of a diagnosis of AGUS-EC for true glandular pathology. Subclassifying AGUS-EC as “favor reactive” or “favor neoplastic” may provide valuable information for directing patient follow-up.

PMID: 12040636 [PubMed - indexed for MEDLINE]