題名:Human Papillomavirus Genotyping for the Eight Oncogenic Types Can Improve Specificity of HPV Testing in Women with Mildly Abnormal Pap Results

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摘要:To evaluate whether human papillomavirus (HPV) genotyping for the selected oncogenic HPV types can improve the efficacy of HPV DNA testing in predicting cervical intraepithelial neoplasia (CIN 2/3) in women with
mildly abnormal Pap results, we compared HPV DNA testing and HPV genotyping for eight oncogenic types (16, 18, 31, 33, 35, 45, 52 and 58) in Pap specimens with abnormal results (HSIL, 20 cases; LSIL, 42 cases; ASC-US,
94 cases) and follow-up biopsies. Using consensus primer-mediated PCR assays, HPV DNA was detected in 90% (18/20) of HSIL, 95% (40/42) of LSIL and 64% (60/94) of ASC-US cases. HPV DNA positivity was significantly associated with CIN 2/3/carcinoma (Po0.001) in women with ASC-US, but not in women with LSIL (P¼0.52). Of HPV DNA-positive specimens, the eight oncogenic HPV types were detected in 83% of HSIL cases (15/18), 53% of LSIL cases (21/40), and 47% of ASC-US cases (28/60). The eight oncogenic HPV types were significantly associated with CIN 2/3/carcinoma (OR, 10.6; 95% CI, 3.98–28.10; Po0.001), whereas no significant association
was observed between the non-eight oncogenic HPV types and CIN 2/3/carcinoma (OR, 2.20; 95%CI, 0.80–6.03; P¼0.125). In women with ASC-US, HPV genotyping for the eight oncogenic types showed higher specificity (81 vs 46%) and positive predictive value (PPV, 44 vs 26%)

in predicting CIN 2/3/carcinoma compared to HPV DNA testing. Similarly, in women with LSIL, higher specificity (69 vs 8%) and PPV (62 vs 39%) for predicting CIN
2/3/carcinoma were also observed using HPV genotyping test for the eight oncogenic types compared to HPV DNA testing. Our findings suggested that HPV genotyping for the eight oncogenic types might be useful to improve the efficacy of HPV DNA testing for predicting CIN 2/3/carcinoma in women with mildly abnormal Pap results, which may lead to personalized clinical management with improved patient compliance for follow-up.