



Double Test: A Simplified Alternative for Cervical Cancer Screening in Low Resource Countries

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Abstract:

Abstract: Objectives: To test if combining positive results of sequential magnified naked-eye examination (MNEE) and visual inspection of cervix after application of acetic acid (VIA) would increase diagnostic indices for precancerous and cancerous cervical lesions in comparison to the gold standard positive Pap test in a developing country set up. A secondary objective was to evaluate the effectiveness of nurse training and patient acceptance of this screening approach. Design: An analytic cross-sectional research design Setting: Gynecology and infertility out-patient clinics of the departments of Obstetrics and Gynecology, Woman's Health University hospital, Assiut University, Egypt. Materials and methods: A total of 445 non-pregnant women aged between 17 and 44 years were counseled and entered this study. They were subjected to MNEE after cleaning of the cervix with 0.9% saline, exfoliative cytology and lastly VIA. Positive results were evaluated and managed accordingly. Colposcopy with or without subsequent cervical biopsy were done in all positive cases of MNEE, VIA and Pap smear. Main outcome measures included diagnostic accuracy of VIA alone versus VIA and MNEE as compared to cytology. Results: This study comprised 445 non pregnant women in the reproductive age. The main complaint was abnormal vaginal discharge in 403 cases (89.6%) . MNEE of the cervix indicated that 338 women (75.1%) and 112 women (24.9%) had healthy and unhealthy-looking cervixes respectively. Pap smear sampling was negative for premalignant or malignancy in 377 cases (83.8%). VIA test findings were positive in 77 cases (17.3%) and negative in 368 cases (82.6%) All diagnostic indices increased significantly after combining MNEE and VIA positive results except negative predictive value if compared to VIA positive results alone as an alternative to the standard Pap smear. Nurses proved high level of skill in performing cervical cytology, MNEE and VIA as proved by lower rate of unsatisfactory results. Patient acceptability was very high after proper counseling. Conclusions: Sequential MNEE and VIA would improve most of diagnostic indices as an alternative diagnostic tool to the gold standard Pap smearing for detection of abnormal precancerous and cancerous cervical lesions. This simplified cheap approach with high percentage of patient acceptability would help expanding screening programs in countries where Pap smear is poorly available. Being performed by doctors as well as trained nurses on one-stop base is a clear advantage. More large sample sized studies on the cost-effectiveness of this approach versus colposcopically-guided positive histopathology are recommended before its universal spread

Keywords:

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