CERVICAL SWEDGE SCORE IS AN ALTERNATIVE CERVICAL SCREENING APPROACH IN LOW-RESOURCE SETTING BY USING A POCKET-SIZED BATTERY DRIVEN COLPOSCOPE, THE GYNOCULAR; A CROSS-OVER RANDOMIZED TRIAL

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Objective: Could cervical Swede score provide an alternative cervical screening approach in low-resource settings by using a portable battery driven mini-colposcope, the Gynocular.

Design: Cross-over randomized clinical trial.

Setting: The Colposcopy Clinic of Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh.

Population: 540 women positive for visual inspection with acetic acid (VIA).

Methods: Swede scores were obtained by both the Gynocular and stationary colposcope. The Swede scores and liquid based cytology were compared against each other and against the histological diagnosis obtained by directed cervical biopsy and used as gold standard criterion. The percentage agreement and the Kappa statistic for the Gynocular and standard colposcope were also calculated.

Main outcome measures: Swede score by Gynocular and colposcope, biopsy, cytology, HPV and histology.

Results: The stationary colposcope and the Gynocular showed very high agreement in Swedes scores of with a Kappa statistic of 0.99, p<0.0001, and with no difference in detecting cervical lesions in biopsy. Biopsy detected CIN 2+(CIN 2, CIN 3 and invasive cancer) in 38(7%) of the women while liquid based cytology detected CIN 2+ in 13(2.4%) of the women. 44 (8.1%) women tested positive for HPV(Human Papilloma Virus): HPV 16, 20(3.7%, HPV 18, 2(0.4 %) and other high risk HPV 22(4.1%).

Conclusions: Our study showed that few VIA positive women had CIN2+ lesions or HPV infection. Colposcopy by Swede score identified more CIN2+ lesions than liquid based cytology and thus could offer a more accurate alternative cervical screening method for cervical detecting cervical lesions in low-resource settings.