



## Comparing the Efficacy of Visual Inspection with Acetic Acid and Pap Smear as a Screening tool for Cervical Pre invasive Lesion

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### Abstract

**Objective:** To compare the efficacy of pap smear with VIA (Visual Inspection of Cervix after application of Acetic acid) as screening of CIN and early cancer cervix.

**Material & Methods:** 350 patient who had relevant history and clinical suspicion were subjected to pap smear, VIA and biopsy. The sensitivity and specificity, false positive rate and false negative rate were calculated for VIA and Pap smear.

**Results:** This study showed sensitivity and specificity of pap smear 81% and 97.8 % respectively and that of VIA were 86.1% and 99.1% respectively.

**Conclusion:** VIA is a suitable primary screening procedure in developing countries like India as it is inexpensive, simple and treatment can be administered at the same time.

### Introduction

One of the leading cause of cancer deaths in women is cancer cervix<sup>(1)</sup> Cancer of cervix is a preventable disease of significant public health concern especially in developing countries.

In India 80 – 85% cases are detected late in Stage III or IV<sup>(2)</sup>, Resulting in high motility rates and poor survival.

There has always been a search for a test which would effectively diagnose this disease in early stages. It is seen that every year in India more than 1,20,000 new cases of Cervical cancer are detected and nearly 75,000 women die annually from disease<sup>(3, 4, 5)</sup>

### Material and Method

It was a prospective study carried out in outpatient department of Obs & Gynae in SKMCH, Muzaffapur between Nov. 2017 and December 2018. 350 patients were enrolled with complaints of blood stained discharge, Post coital bleeding profuse vaginal discharge, intermenstrual bleeding with a suspicious looking cervix on per speculum examination were included in the study.

Each patient per speculum examination was done and naked eye inspection of cervix was done by VIA with application of 4% acetic acid. If there was abnormal pap smear finding at least four cervical biopsies (One biopsy each at 2, 4, 8 & 10<sup>0</sup>

clock) had been taken out and sent to pathologist suspicious or invisible lesions on VIA were then biopsied. All the specimen which included cytological and histological specimen were analysed by the pathologists and the results were formed and sensitivity and specifically of VIA & Pap smear were determined.

### Results

Out of 350 patients, ten patients (3%) did not turn up. In case of VIA, biopsy histology positive (true positive) were 6 cases out of 350 patients. VIA positive cases were 7 cases. Sensitivity & specificity of VIA calculated were 86.1% and 99.1% respectively. In case of pap smear cytology out of 340 patients true positive were 5 patients & pap smear positive were 7 patients sensitivity & specificity were 81% and 97.8% respectively

**Table 1** The result of VIA after application of acetic acid (N = 350)

	Biopsy histology positive	Biopsy histology Negative.	Total
VIA Positive	5	2	7
VIA Negative	1	342	342
Total	6	344	350

**Table 2** The result of pap smear test (N = 340)

	Biopsy histology positive	Biopsy histology Negative.	Total
Pap smear positive	4	3	
Pap smear Negative	1	335	
Total	5	335	340

### Conclusion

Our study showed that the results of VIA is comparable to pap smear and it is safe easy and effective technique and can be a suitable alternative Screening test.

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