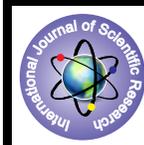


Study of cervical cytology, colposcopic abnormality and biopsy findings in 100 HIV infected women.



Management

KEYWORDS :

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ABSTRACT

To study cervical cytology, colposcopic abnormality and biopsy findings in 100 HIV infected women.

INTRODUCTION:

Cervical cancer ranks as third most common cancer in women worldwide and is the fourth leading cause of cancer deaths in women, with estimated 270000 deaths annually.

The estimated number of people living with HIV/AIDS in India was 20.89 lakh in 2011. The adult (15-49 age -group) HIV prevalence at national level has continued its steady decline from estimated level of 0.41% in 2001 to 0.27% in 2011. But still, India is estimated to have the third highest number of estimated people living with HIV/AIDS, after South Africa and Nigeria (UNAIDS Report on the Global AIDS epidemic 2010).

Carcinoma of cervix, due to its slow progression from pre-cancerous lesions to malignancy and easy accessibility to examination, gives us ample opportunity for its early detection. It may be done through opportunistic examination of women attending outpatient clinics or through systematic program of screening.

Among all malignant cancers, cervical cancer is the one that can be most effectively controlled by screening. Cervical cytology often referred to as the **Pap smear** is perhaps the most well-known of available screening methods. However, Colposcopy is newer screening technique demonstrated potential for early detection in many settings, more sensitive than Pap smear in early detection of epithelial changes. And if any suspicious lesion found biopsy can be taken from lesion. These technologies are currently being assessed by the Alliance for Cervical Cancer Prevention (ACCP) for their use in developing countries. As critical as detection is, the need for women with positive results to receive adequate and timely treatment for dysplasia, is paramount. Even in low resource settings, treatment can be offered using low morbidity outpatient procedures such as Cryotherapy or Loop Electrosurgical Excision Procedure.¹

Inclusion criteria:

Married HIV infected women attending ART Centre or Gynaecological OPD.

Exclusion criteria:

Known case of Invasive cervical cancer
Operated case of Hysterectomy

OBSERVATIONS AND DISCUSSION

TABLE-2a

Pap smear, Colposcopy, Biopsy findings of enrolled participants (n=100)

Pap smear Findings(n=100)	
NILM	92(92%)
ASCUS	4(4%)
LSIL	2(2%)
HSIL	2(2%)
Colposcopy(n=100)	
Normal	94(94%)

Abnormal	6(6%)
Biopsy(n=6)	
No Dysplasia	2(33.33%)
Mild Dysplasia	2(33.33%)
Moderate/Severe Dysplasia	2(33.33%)

Pap smear samples of all study participants were taken within the last six months or just before performing colposcopy and results of these Pap smear examination were as follow :

92% had Negative for intra-epithelial lesion (NILM), 4% had Atypical Squamous cell of Undetermined significance (ASCUS), 2% had Low grade Squamous Intra-epithelial Lesion (LSIL) and 2% had High grade Squamous Intra-epithelial Lesion (HSIL) on Pap smear. No ASCUS-H or invasive cancer was reported in Pap smear in our study.

All study participants underwent colposcopy;

6% had abnormal colposcopic findings and 94% had normal colposcopic findings.

- Six participants who had colposcopic abnormality were subjected to colposcopic guided biopsy and result of these biopsy reports were as follows:
- moderate to severe dysplasia was noted in two participants, mild dysplasia in two and
- No dysplasia was reported in the remaining two participants.

Table-3a shows correlation between Pap smear and Colposcopy results in present study

TABLE-3a

Correlation between Pap smear and Colposcopy results in present study (n=100)

Pap smear	Colposcopy results		
	Abnormal	Normal	Total
Abnormal (LSIL+ HSIL+ASCUS)	5	3	8
Normal (NILM)	1	91	92

Amongst the enrolled participants,

- 94 had normal colposcopic findings;
- 91 of these 94 (91/94 i.e. 96.80%) had NILM,
- 3 of these 94 (3/94 i.e. 3.19%) had Squamous intra-epithelial lesion or atypical squamous cell of undetermined significance.
- 6 had colposcopic abnormality;
- 1 of these had NILM (1/6 i.e. 16.16%) and

5 of these (5/6.i.e.83.33%) had intra-epithelial lesion or atypical squamous cell of undetermined significance.

Cervical cytology and colposcopy results were similar in 96% of cases while their results differed in 4% of cases.

Table-3b shows comparison of cytology-colposcopy correlation with similar study in literature.

Table – 4

Correlation between abnormal Pap smear results and Biopsy results (n=5)

	Biopsy (n=5)		Total
	Abnormal (Dysplasia)	Normal (No Dysplasia)	
ASCUS	-	1	1
LSIL	1	1	2
HSIL	2	-	2
Total	3	2	

Three participants with abnormal Pap results had dysplasia on cervical biopsy (abnormal result) (positive predictive value of Pap smear of 60%), while two participants had no evidence of cervical dysplasia (normal result).

Both participants with HSIL and one with LSIL had cervical dysplasia, while one each with LSIL and ASCUS did not have dysplasia.

Table-5 table shows correlation between colposcopy results and biopsy results.

Table – 5

Correlation between abnormal Colposcopy results and Biopsy results (n=6)

	Biopsy		Total
	Abnormal (Dysplasia)	Normal (No Dysplasia)	
Colposcopy			
Abnormal	4	2	6

The six participants with abnormal colposcopy results underwent colposcopic guided biopsy, four of this cervical biopsy reports revealed dysplasia; while two reports revealed no dysplasia. So positive predictive value of abnormal result of colposcopy for diagnosing cervical dysplasia in present study was 66.66%.

Further management:

Those who had abnormal colposcopy and either no dysplasia (n=2) or mild dysplasia (n=2) in their biopsy report were advised follow up by Pap smear every 3 months.

Those participants who had abnormal colposcopy and moderate to severe dysplasia (n=2) in their biopsy report underwent hysterectomy. Both these participants had evidence of severe dysplasia in their histo-pathology reports. They were advised for six monthly Pap smear from vault.

We next attempted to analyse present study results with respect to various variables noted. This table shows correlation of variables of enrolled participants with their colposcopy results.

Conclusion

Both Pap smear and colposcopy are sensitive tests to screen for cervical abnormalities with slightly higher positive predictive value of colposcopy. An abnormal Pap smear should be followed by colposcopy for focussed biopsy. If facilities are available colposcopy should be used as first screening test. Colposcopy has advantage that biopsy can be taken from suspicious lesion simultaneously.

If no abnormality found on colposcopic examination then no further biopsy is required and patient should be monitored by repeated Pap smear or colposcopic examination every six monthly.

Though colposcopy is a sensitive test every abnormal colposcopy result has to be confirmed by biopsy results.

REFERENCE

1. Stedman's Medical Dictionary, 27th ed. Baltimore (MD): Lippincott Williams and Wilkins Co.; 2000.p.383. | 2. O'Dowd MJ, Philipp EE. The history of obstetrics and gynaecology. Pearl River (NY): Parthenon Publishing Group; 1994.p.543-70. | 3. Coppleson M, Pixley EC. Colposcopy of cervix. In: Coppleson M, editor. Gynecologic oncology. Fundamental principles and clinical practice. 2nd ed. vol.1. New York: Churchill Livingstone; 1992.p.297-324. | 4. Bauer H. Color atlas of colposcopy. 3rd ed. New York: IGAKU-SHOIN Medical Publisher, Inc.; 1990.p.1-5. | 5. Koller O. The vascular pattern of the uterine cervix. Oslo: Universitetsforlaget; 1960. | 6. Kolstad P, Staff A. Atlas of Colposcopy. Oslo: Universitetsforlaget; 1972. | 7. Coppleson M, Pixley EC, Reid BL. Colposcopy. A scientific and practical approach to the cervix, vagina, and vulva in health and disease. 3rd ed. Springfield: Thomas; 1986. | 8. GLOBOCAN 2000. Cancer incidence, mortality and prevalence worldwide. IARC Cancer Base No.5. Version 1.0 Lyon: IARC Press; 2001 | 9. Sehgal A, Bhambani S, Singh V, Luthra UK. Screening for cervical cancer by direct inspection. Lancet 1991; 228:817-8. | 10. Morgan PR et al. The Royal College of Obstetricians and Gynaecologists micro-invasive carcinoma of the cervix study: preliminary results. Br JS ObstetGynaecol 1993; 100(7):664-8. |