



COLPOSCOPY IN UNHEALTHY CERVIX

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ABSTRACT

Cervical cancer is the twelfth most predominant cancer in the females. Papanicolaou (PAP) smear is a simple, safe, non-invasive and effective method for detection of pre-cancerous changes in the cervix and vagina. The patients having abnormal Cervical Cytological smear, abnormal VIA (visual inspection with acetic acid application) or VILI (visual inspection with Lugo's Iodine application) are subjected to colposcopic examination. Colposcopy helps to assess squamo columnar junction visibility and transformation zone. The objective of colposcopist should be to recognize or exclude the underlying invasive disease. This paper aims at the role of colposcopy in the evaluation of cervical lesion and to detect carcinoma of the cervix in its pre-invasive stage. It helps to spot the exact site of the lesions and to obtain the biopsies. This was a prospective clinical study carried on 50 patients at the department of Obstetrics and Gynaecology, AVBRH hospital DMIMSU Wardha, during November 2017 to November 2018. Interpretations were made on the basis of swede score, which lies between 0 and 10. Colposcopy is the diagnostic test to evaluate patients with an abnormal cervical cytological smear or abnormal appearing cervix. Colposcopic features and patterns corresponds with underlying specific histological features. The presence or absence of precancerous lesions are confirmed with colposcopy and finally with biopsy.

KEYWORDS : Leukoplakia, Original Mucosa, Mosaic, Atypical transformation zone.

INTRODUCTION

Carcinoma of cervix is the most frequent of all the genital tract cancers. The International Agency for Research on Cancer (IARC) study on cancer survival in mainly low and middle income countries estimated sex specific absolute survival of over half a million cases of 1 to 56 cancer types from 27 population based cancer registries in 14 countries within Eastern and Western Africa, the Caribbean, Central America and four regions of Asia [4].

Interest in colposcopy has grown steadily along with the incidence of cervical disease during the past three to four decades. The clinical use of colposcopy for the evaluation of cervical cytologic abnormalities allows the identification and successful management of most premalignant cervical lesions [1]. Its usefulness and efficacy in cancer prevention is undisputed and unparalleled.

The PAP smear is the generally used screening tool for Cervical Intra-epithelial Neoplasia (CIN) and for invasive cancer of the uterine cervix. There was a discrepancy in the accuracy of the PAP smear results observed in the pre-cancerous and non-cervical pathology in the cervix. Also, there was an incidence of false negative results of the PAP smear. The simultaneous use of cytological studies and screening colposcopy has been proved to increase the rate of the cervical cancer detection. Histopathology of suspected lesion remains the major standard for final diagnosis.

A colposcopic directed biopsy is a sureshot diagnostic step for women with clinically unhealthy cervix. This study was done to evaluate the role of colposcopy in the detection of unhealthy cervix.

AIM & OBJECTIVES:

1. To detect carcinoma of the cervix in its pre-invasive stage.
2. To study the role of colposcopy in the evaluation of the cervical lesions.
3. To localize the lesions and to obtain biopsies from the selected areas.

MATERIAL & METHODS:

- Patients visiting the gynaecology OPD

- Type of study – prospective cross sectional study
- Sample size – estimated sample size for study is 50 patients
- SENSITIVITY = 91.3%
- SPECIFICITY = 96.2%
- $se = Z / 2$
- $(1.96) 2 * 0.913 * 0.09$
- $(0.10) 2 * 0.32$
- $98.32 = 100$

Sample Size: 50 women in the age group of 25-60, were screened at Gynaecology OPD from November 2017 to November 2018.

Study duration

- This study was performed for 1 year, at the department of Obstetrics & Gynaecology, AVBRH hospital DMIMSU Wardha after approval from institutional ethics committee
- Informed consent was included for the women who fulfilled the inclusion criteria and enrolled in the study

Inclusion criteria:

- Women (who are sexually active) attending OBGY OPD
- Those who are ready to participate in study

Exclusion Criteria:

1. Active bleeding per vaginum
2. Profuse cervical and vaginal discharge
3. Obvious cervical growth
4. History of hysterectomy
5. Surgical treatment of the cervix
6. Iodine allergy

METHODOLOGY

This was a prospective clinical study on the women who attended the Gynaecology Outpatients Department at Avbrh during November 2017 to November 2018. The institutional ethical committee clearance was obtained and an informed consent was taken from all the study subjects. 50 patients who were aged between 25-60 years, with clinically un- healthy cervix, were subjected to a colposcopic evaluation and the findings were noted. All the patients underwent both the acetic acid and the Schiller's test before they were subjected to

colposcopic directed biopsies. The biopsies were taken from the acetowhite areas and the iodine negative areas. The women with frank cervical lesions and bleeding were excluded from the study. The findings were broadly categorized into 5 groups – normal, unsatisfactory, abnormal colposcopy, invasive carcinoma (colposcopically suspected) and miscellaneous.

STATISTICAL ANALYSIS

Statistical analysis was done with the help of descriptive and inferential statistic using Chi square test. Software used in the analysis was SPSS 17.0 and Graph Pad 6.0 and $p < 0.05$ was considered as level of significance. Interpretation were made based on the swede score. The total Swede score ranges between 0 and 10. A score of > 8 - Requires Excision, 5-7 - Requires Biopsy, > 5 - High Grade Lesions, < 5 - Doesn't Require - Biopsy.

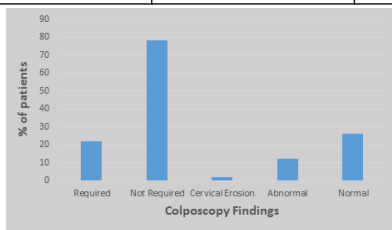
OBSERVATIONS AND RESULTS

Table 1: Swede score for interpretation of colposcopic findings.

	0	1	2
Uptake of acetic acid	0/transparent	Shady, milky	Distinct
Margins and surface	0/diffuse	Sharp but irregular, jagged, geographical areas	Sharp and even, difference in surface level
Vessels	0/diffuse	Absent	Atypical
Lesion size	Grades	5-15	> 15
Iodine staining	Brown	Patchy yellow	Distinct yellow

Table 2: Distribution of Cases According To Colposcopy Findings.

Colposcopy Findings	Number Of Cases	Percentage
Strawberry Cervix	10	20
Hyperaemic Cervix	20	40
Cervical Erosion	1	2
Abnormal	6	12
Normal	13	26
Total	50	100



Graph 1: Distribution of Cases According To Colposcopy Findings.

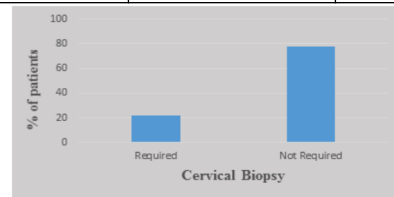
Table 3: Distribution Of Cases According To Cervical Biopsy.

Cervical Biopsy	Number Of Cases	Percentage
Required	11	22
Not Required	39	78
Total	50	

Table 4: Distribution Of Cases According To Diagnosis.

Diagnosis	Number Of Cases	Percentage
Bacterial Vaginosis	6	12
Candidiasis	10	20
Trichomoniasis Vaginitis	15	30
Ectropion	1	2
Adenocarcinoma	1	2
Squamous Cell Carcinoma	2	4

Atrophic Vaginitis	2	4
Chronic Cervicitis	3	6
Normal	10	20
Total	50	100



Graph 2: Distribution of Cases According To Cervical Biopsy.

DISCUSSION:

In the study all the patients were evaluated on the basis of inclusion and exclusion criteria and who attended the gynaecology OPD in our hospital. 50 patients were enrolled as cases for study and consent was taken., The unhealthy cervix was subjected to colposcopy. Confirmatory biopsy were taken if required. Patients of low socio economic status can't afford repeated follow up hence colposcopy can be used as a investigation to rule out cervical cancer lesions and also as a diagnostic test for various cervical infections Colposcopy can be used not only as a screening test for cervical cancer, but can also be used to diagnose various infective cause of cervical infections.

CONCLUSION:

The diagnostic test to evaluate patients with an abnormal cervical cytological smear or abnormal-appearing cervix is colposcopy. Colposcopic features and patterns will correspond with underlying specific histological features. The greater the experienced colposcopist, the greater the confidence in assessing the atypical transformation zone. For practical purposes, the most important aspect is always the recognition or exclusion of underlying actual invasive disease. The presence or absence of precancerous lesions are confirmed with colposcopy and finally with biopsy. Colposcopy eliminates the need for repeated follow up as in PAP smear. Histo-pathology of suspected lesion remains gold standard for final diagnosis of precancerous.

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