

Study of Colposcopic Evaluation in Unhealthy Cervix in Semi-Urban Population of Jharkhand

Sarani Sagen Dahanga¹, Shashi Kant Suman², Sabita Sukladas³

¹Assistant Professor Department of Obstetrics and Gynecology, Phulo Jhano Medical College hospital, Dumka, Jharkhand-814101

²Assistant Professor, Department of Orthopaedics, Phulo Jhano medical college and hospital, Dumka, Jharkhand-814101

³Professor, Department of Obstetrics and Gynecology, Phulo Jhano medical college and hospital, Dumka, Jharkhand-814101

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Corresponding author: Dr. Sarani Sagen Dahanga

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Abstract:

Background: An unhealthy cervix is a common finding in day today gynecological practice in India, and worldwide. Pap smear cytology, colposcopic findings and histopathological studies (cervical biopsy) can diagnose and predict benign and malignant cervical lesions.

Method: 60 (sixty) married or sexually active patients with complaints of white discharge per vaginum, lower abdominal pain, abnormal uterine bleeding (irregular menses), post-coital bleeding or postmenopausal bleeding with an unhealthy cervix underwent colposcopic evaluation, and findings were noted. Every patient underwent both acetic acid and Schiller's iodine tests before they were subjected to the colposcopically directed biopsies. The colposcopy-directed biopsies were taken from aceto-white areas or Lugol's negative areas.

Results: Clinical manifestations of patients included 32 (53.3%) having white discharge, 11 (18.3%) having irregular menses, 8 (13.3%) having lower abdominal (lower back pain), 3 (5%) having post-menopausal bleeding, and 6 (10%) having post-coital bleeding. The colposcopic findings were: 21 (35%) had aceto-white areas, 19 (31.6%) had punctuation, 8 (13.3%) had a mosaic pattern and 3 (5%) had abnormal vasculature. 9 (15%) had a normal cervix. Cervicitis was found in 33 (55%) of the participants in the current study. 11 (18.3%) had mild dysplasia, 8 (13.3%) had moderate dysplasia, 4 (6.6%) had severe dysplasia, 4 (6%) had CIN, 20 (33.3%) biopsy were positive, 40 (66.6%) biopsy were negative, 38 (62%) colposcopy studies were positive, and 22 (38%) were negative.

Conclusion: Colposcopic evaluation and cervical biopsy findings were used to find out the cytology of the cervix in different age groups of females. In addition to this, a Pap smear test will complement the diagnosis.

Keywords: colposcopy, biopsy, dysplasia, cervical intra-epithelial neoplasia (CIN).

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Introduction

Unhealthy cervix is a common finding in day today gynaecological practice in India and is one of the known indications for colposcopy evaluation [1]. Cervical cancer is a leading cause of mortality among women in India. Cervical erosion is one of the most common cervical lesions in women in OPD cases. Cervical erosion or ectropion (or cervical eversion) is a condition in which the central (endocervical) columnar epithelium protrudes out through the external OS of the cervix and onto the vaginal portion of the cervix, undergoes squamous metaplasia, and transforms into stratified squamous epithelium [2].

When symptoms such as post-coital bleeding and troublesome vaginal discharge occur in a woman in the presence of cervical ectropion, it is simply a

benign lesion that is associated with infection, CIN, or even cancer [3,4].

A random biopsy from such a cervix may miss the representative area, or the Pap smear cytology may be false or negative. Hence, an attempt was made to find out the role of colposcopy in detecting pre-invasive and early-invasive lesions in the unhealthy cervix and to correlate the result of the colposcopic findings with histopathological examinations.

Material and Methods

60 (sixty) adult females aged between 20 to 65 years visiting the OPD of Obstetrics and Gynaecology Department of Phulo Jhano Medical College Hospital, Dumka, Jharkhand (814101) were studied.

Inclusion criteria: Married or sexually active patients having white discharge per vagina, irregular menses, lower abdomen pain, (low back ache) post-menopausal bleeding, and post-coital bleeding.

Exclusion criteria: Pregnant women, women having puerperal or post-abortion bleeding PV at the time of examination and immuno-compromised patients were excluded from the study.

Methods: A detailed history of every patient was noted regarding their complaints, age at marriage, number of children, use of oral contraceptives, number of sexual partners etc. Written informed consent was obtained. A Pap smear was taken. The colposcopic evaluation was done and findings were noted. All the patients underwent both 5%acetic acid (VIA-visual inspection with acetic acid) and Schillers iodine tests (VILI-visual inspection with Lugol’s iodine) before they were subjected to colposcopy-directed biopsies. The biopsies were taken from acetowhite areas and iodine-negative areas. The duration of the study was from June 2022 to May 2023.

Statistical analysis: The various age groups and clinical manifestations were classified by percentage. The statistical analysis was done in 2007 using SPSS software.

Observation and Results

Table 1: Clinical manifestations of the patients who underwent coloposcopy evaluation- 32 (53.3%) had white discharges per vagina, 11 (18.3%) had irregular menses, 8 (13.3%) had lower abdominal (lower backache) pain, 3 (5%) had

postmenopausal bleeding, and 6 (10%) had post-coital bleeding.

Table 2: Study of colposcopic findings -21 (35%) had aceto-white areas, 19 (31.6%) had punctuation, 8 (13.3%) had a mosaic pattern, and 3 (5%) had abnormal vasculature. 9 (15%) had a normal cervix.

Table 3: Study of colposcopic evaluation at different age groups

- In the age group 20 to 33 – 17 had cervicitis, 3 had mild dysplasia, 1 had moderate dysplasia, 1 had severe dysplasia, and 1 had CIN.
- In the age 34-44 – 8 had cervicitis, 5 had mild dysplasia, 3 had moderate dysplasia, 1 had severe dysplasia, and 1 had CIN.
- In the age of 44-55 – 5 had cervicitis, 2 had mild dysplasia, 2 had moderate dysplasia, 1 had severe dysplasia, 1 had CIN.
- In the age range of 56–65, 3 had cervicitis, 1 had mild dysplasia, 2 had moderate dysplasia, 1 had severe dysplasia, and 1 had CIN.
- A total of 33 (55%) had cervicitis, 11 (18.3%) had mild dysplasia, 8 (13.3%) had moderate dysplasia, 4 (6.6%) had severe dysplasia, and 4 (6%) had CIN.

Table 4: Analysis of colposcopic results

- 17 (28.3%) had colposcopic positives and biopsy positives. 21 (35%) had a biopsy negative.
- 3 (5%) had a negative colposcopy, and 19 (32%) had a negative biopsy.
- 20 (33.3%) biopsy-positive, 40 (66.6%) biopsy-negative.

Table 1: Clinical manifestations of patients who underwent colposcopy evaluation (No of patients. 60)

Sl. No	Clinical Manifestations	No of Patients	Percentage (%)
1	White discharge per vagina	32	53.3
2	Irregular Menses	11	18.3
3	Lower abdominal (lower backache) pain	8	13.3
4	Post-menopausal bleeding	3	5
5	Post-coital bleeding	6	10

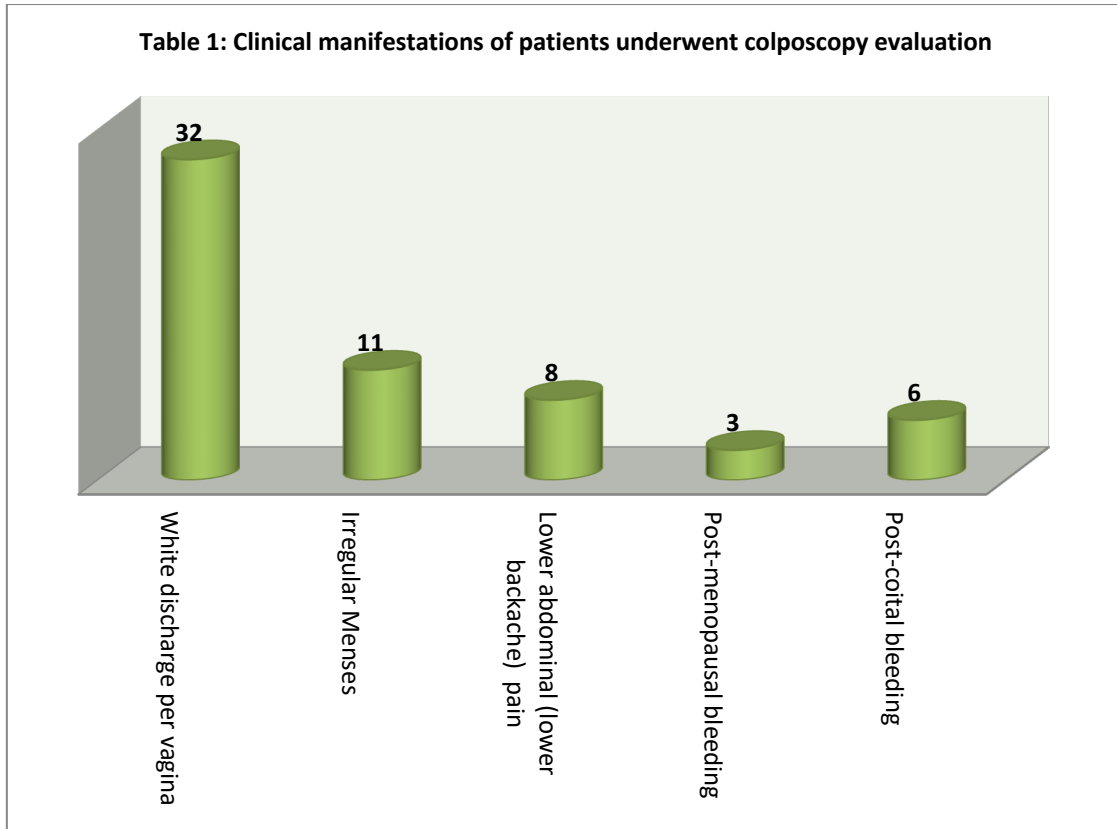


Figure 1: Clinical manifestations of patients underwent colposcopy

Table 2: Study of Colposcopy findings (No of patients 60)

Sl. No	Details	No of Patients	Percentage (%)
1	Aceto white area	21	35
2	Punctuations	19	31.6
3	Mosaic pattern	8	13.3
4	Abnormal vasculature	3	5
5	Normal cervix	9	15

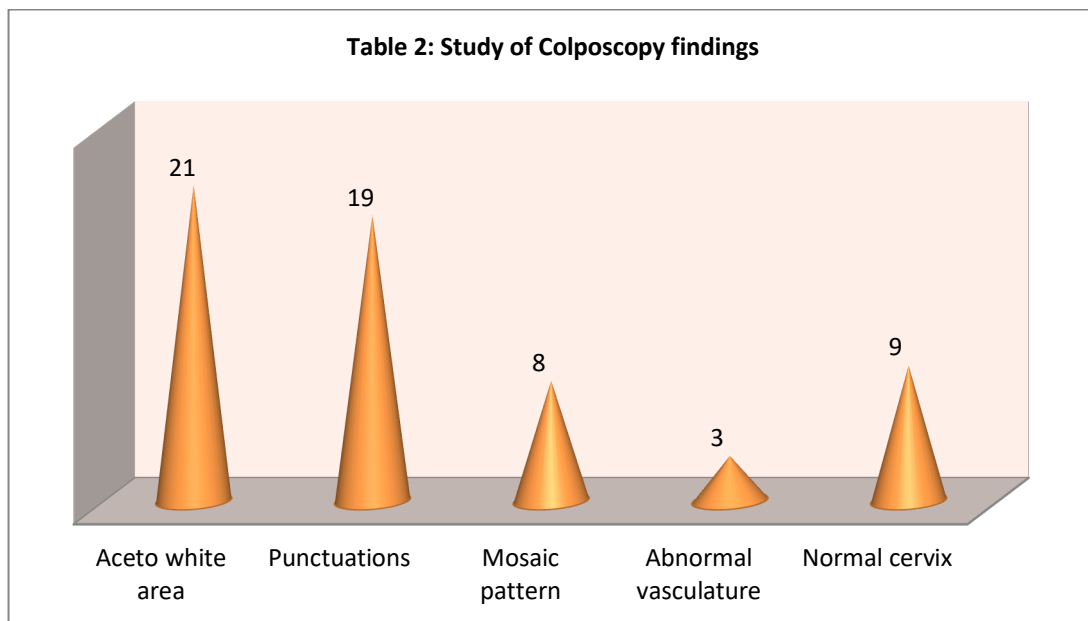


Figure 2: Study of Colposcopy findings

Table 3: Study of Colposcopy at different age groups (No of patients 60)

Age group	Cervicitis	Mild dysplasia	Moderate dysplasia	Severe dysplasia	CIN
20-33	17	3	1	1	1
34-44	8	5	3	1	1
45-55	5	2	2	1	1
56-65	3	1	2	1	1
Total with percentage	33 (55%)	11 (18.3%)	8 (12.3%)	4 (6.8%)	4 (6.8%)

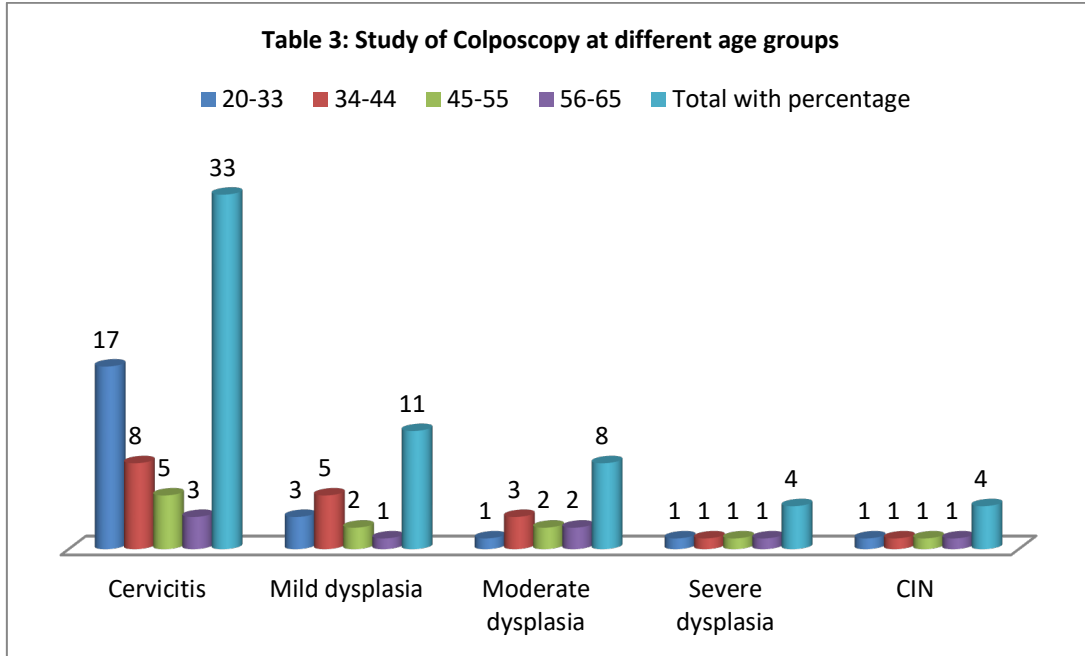


Figure 3: Study of Colposcopy at different age groups

Table 4: Analysis of colposcopic results (No of patients 60)

Sl. No	Results	Biopsy positive	Biopsy Negative	Total
1	Colposcopy positive	17 (28.3%)	21 (35%)	38 (62%)
2	Colposcopy negative	3 (5%)	19 (32%)	22 (38%)
3	Total	20 (33.3%)	40 (66.6%)	60 (100%)

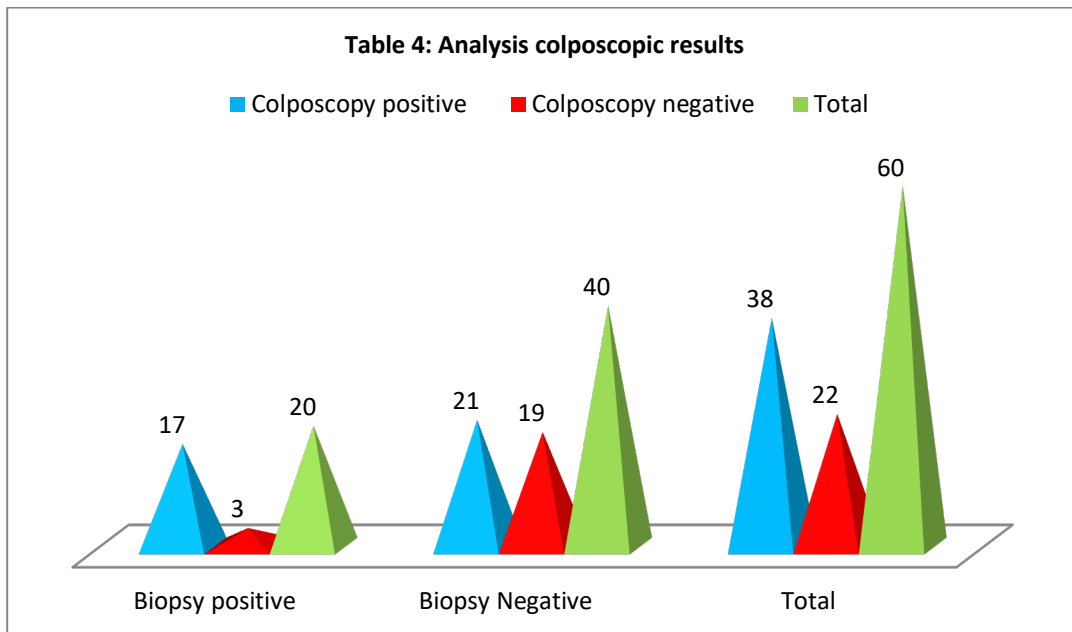


Figure 5: Analysis colposcopic results

Discussion

In the present study of colposcopic evaluation in unhealthy cervix in the semi-urban population of Jharkhand, the clinical manifestations were that 32 (53.3%) had white discharges per vagina, 11 (18.3%) had irregular menses, 8 (13.3%) had low back pain, 3 (5%) had post-menopausal bleeding, and 6 (10%) had post-coital bleeding (Table 1). In the colposcopic findings, 21 (35%) had aceto-white areas, 19 (31.6%) had punctuation, 8 (13.3%) had a mosaic pattern, 3 (5%) had abnormal vasculature, and 9 (15%) had a normal cervix (Table 2). 33 (55%) had cervicitis, 11 (18.3%) had mild dysplasia, 8 (13.3%) had moderate dysplasia, 4 (6.6%) had severe dysplasia, and 4 had CIN (Table 3). In the analysis of colposcopic results, 38 (62%) were colposcopy positive, 22 (38%) were colposcopy negative, 20 (33.3%) were biopsy positive, and 40 (66.6%) were biopsy negative (Table 4). These findings are more or less in agreement with those in previous studies [5,6,7].

In the present study, colposcopic evaluation is considered more authentic than a Pap smear study, but the value of screening tools for cytological screening in our country has long been disputed and constantly under investigation [8], which results in a higher number of morbidity and mortality in India than abroad.

Hence, visual inspection and colposcopy should be used when screening for early-stage lesions [9, 10]. But in underdeveloped countries, including India, effective Pap smear screening is not yet successful, and human papilloma virus (HPV) testing is very costly; hence, colposcopy evaluation plays a vital role in diagnosing unhealthy cervix, including cervical intra-epithelial neoplasia (CIN).

Summary and Conclusion

The present colposcopy evaluation of an unhealthy cervix will be quite helpful to obstetricians and gynaecologists to differentiate between the various diseases of the cervix. Moreover, the HPV test is costlier than the colposcopy test. Hence, very few Indian women can afford the HPV examination, but this study demands further genetic, hormonal, nutritional, embryological, and immunological

study because the exact pathogenesis of an unhealthy cervix is still unclear.

Limitation of study: Owing to the tertiary location of the research centre, the small number of patients, and the lack of the latest technologies, we have limited findings and results.

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