

## Colposcopic Findings in Patients of Cervical Erosion at Tertiary Center

Shruti Achawal<sup>1\*</sup>, Ajit Deshpande<sup>2</sup><sup>1</sup>Post Graduate Resident Doctor, Department of OBGY, Rural Medical College (RMC), Loni, Maharashtra 413736, India<sup>2</sup>Professor, Department of OBGY, Rural Medical College (RMC), Loni, Maharashtra 413736, IndiaDOI: [10.36347/sjams.2022.v10i02.015](https://doi.org/10.36347/sjams.2022.v10i02.015)

| Received: 25.12.2021 | Accepted: 02.02.2022 | Published: 13.02.2022

\*Corresponding author: Shruti Achawal

Post Graduate Resident Doctor, Department of OBGY, Rural Medical College (RMC), Loni, Maharashtra 413736, India

### Abstract

### Original Research Article

**Background:** India has a population of approximately 450 million women 18 years of age and older who are at a risk of developing cervical cancer. Recent studies state that nearly every year 122844 women are diagnosed with cervical cancer and approximately 67477 die from cervical cancer. Cervical cancer ranks as the 2nd most frequent cancer among women in India. Cervical erosion is one of the commonest clinical finding in women attending Gynecology outpatient department for various reasons. Cervical erosion which is an abnormality of the cervical epithelium covering ectocervix, has a varied significance. It could be a premalignant or a malignant lesion. Persistent inflammation leads to increased cellular turnover. Cervical cancer can be prevented by detecting precancerous lesions by screening and treating them in time. In spite of the overall high incidence and mortality rates, cervical cancer is considered as the most preventable and treatable form of major cancer through early diagnosis and appropriate treatment of pre invasive and invasive disease. Early detection of cervical epithelial abnormality is important as it helps to prevent progression to CIN and invasive cancer thereafter. **Aim:** To study the colposcopic findings in patients of cervical erosion. **Material and methods:** A prospective observational study was carried out in the time interval from October 2019 to September 2021 at Rural Medical College, Loni. Women diagnosed to have cervical erosion on per speculum examination were enrolled for the study. A total 140 females were studied. Women attending gynecological Outpatient department for various complaints and diagnosed to have cervical erosion on per speculum examination were enrolled in the study. Colposcopy was done using 3% acetic acid and 50% Lugol's iodine. Colposcopy was done and it was interpreted using the Reid's Colposcopic Index which is an objective method of colposcopically grading the severity of premalignant cervical lesions. **Results:** The mean age in years was 43.1+8.2, ranging from 27 to 62 years. Majority (50.9%) of women were in age group of 30 to 60 years. Majority (50%) had per vaginal discharge. On Reids score, majority (73.57%) had score 0-2 i.e. subclinical HPV infection/CIN 1, 16.42% had score 3 to 5 i.e. CIN1/CIN2 and 10.71% had score 6 to 8 i.e. CIN2/CIN3. **Conclusion:** Cervical erosion is a very common finding on per speculum examination. It can be the outcome of infection or pre-neoplastic conditions. Cervical cancer is a preventable and curable malignancy if identified and managed early. However early lesions of cervical cancer, i.e. CIN and early invasive stages are asymptomatic. Hence regular screening after 40 years should be made mandatory and a best screening procedure to detect early lesions should be made available in low resource setting.

**Keywords:** cervical cancer, Colposcopy Index, Cervical erosion.

Copyright © 2022 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

## INTRODUCTION

The colposcope is a low power, binocular microscope for study of epithelium and underlying connective tissue stroma along with vascular pattern. It is an optical method of visualizing the female genital tract under bright illumination using stereoscopic vision. The word "colposcope" is derived from the Greek work kolpos and skope<sup>38</sup>. The most common indication of referral for colposcopy is positive screening tests eg. Cytology, VIA etc.

The uses of colposcopy are: Localization of lesion, making a diagnosis, taking a directed biopsy, guide ablative procedures [1].

India has a population of approximately 450 million women above 18 years of age who are at a risk of developing cervical cancer. Recent studies state that every year nearly 122844 women are diagnosed with cervical cancer and approximately 67477 die from cervical cancer. Cervical cancer ranks as the 2nd most frequent cancer among women in India [2]. Cervical

**Citation:** Shruti Achawal & Ajit Deshpande. Colposcopic Findings in Patients of Cervical Erosion at Tertiary Center. Sch J App Med Sci, 2022 Feb 10(2): 231-234.

erosion is one of the commonest clinical finding in women attending Gynecology outpatient department for various reasons. Cervical erosion which is an abnormality of the cervical epithelium covering ectocervix, has a varied significance. It could be a premalignant or a malignant lesion (cervical cancer) [3]. Persistent inflammation leads to increased cellular turnover. Cervical cancer can be prevented by detecting precancerous lesions and treating them in time by screen and treat programmes. In spite of the overall high incidence and mortality rates, cervical cancer is considered as the most preventable and treatable form of major cancer through early diagnosis and appropriate treatment of pre invasive and invasive disease. Early detection of cervical epithelial abnormality is important as it helps to prevent progression to CIN and invasive cancer thereafter [4].

**Aim:** To study the colposcopic findings in patients of cervical erosion.

## MATERIALS AND METHODS

A prospective observational study was carried out in the time interval from October 2019 to September 2021 at Rural Medical College, Loni. Women diagnosed to have cervical erosion on per speculum examination were enrolled for the study. A total 140 females were studied.

### Inclusion Criteria:

- Symptomatic and asymptomatic women of all age groups reporting to Gynecology OPD and diagnosed to have cervical erosion on clinical examination.
- Those who gave voluntary consent to participate in the study.

### Exclusion Criteria

- Pregnancy
- Known case of cervical cancer

## METHODOLOGY

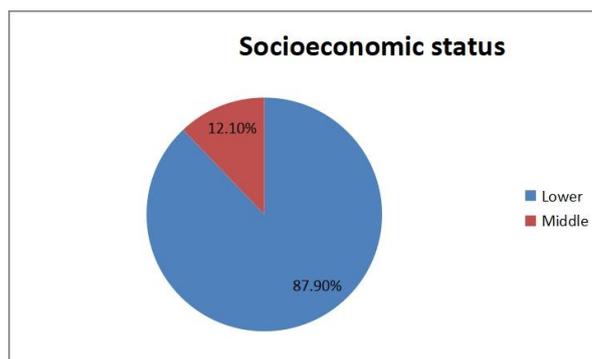
Women attending gynecological Outpatient department for various complaints and diagnosed to have cervical erosion on per speculum examination were enrolled in the study. Colposcopy was done and the findings were graded according to Reid’s colposcopic index. Colposcopy was done using 3% acetic acid and 50% Lugol’s iodine. Colposcopy was done and it was interpreted using the Reid’s Colposcopic Index which is an objective method of colposcopically grading the severity of premalignant cervical lesions.

## RESULTS

The mean age in years was 43.1+ 8.2, ranging from 27 to 62 years. Majority (50.9%) of women were in age group of 30 to 60 years.

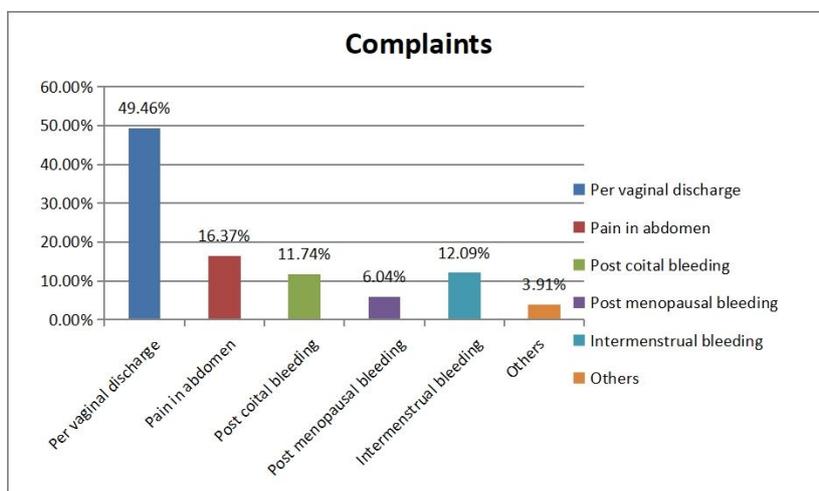
**Table 1: Age distribution among the study population**

Age in years	Percentage
<30	47.28%
30 to 60	50.90%
>60	1.82%
Total	100%



**Graph 1: Socioeconomic status**

Graph 1 shows that majority (87.9%) belonged to lower socioeconomic status group.



**Graph 2: Presenting Complaints**

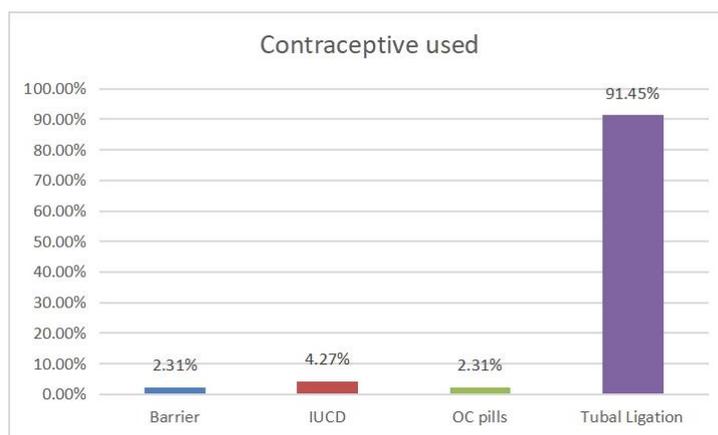
Graph 2 shows that Common complaint seen among respondents was per vaginal discharge in 49.46%, pain in abdomen in 16.37%, intermenstrual

bleeding in 12.09%, post coital bleeding in 11.74% and post-menopausal bleeding was seen in 6.04% respondents.

**Table 2: Duration of marriage**

Duration in years	Frequency	Percentage
<10	14	10%
>10	126	90%
Total	140	100%

Mean years of duration of marriage was 24.6±8.5, ranging from 7 to 45. Majority 90% were married for more than 10 years.



**Graph 3: Contraceptive used**

Graph 3 shows majority 91.45% had undergone tubal ligation as a method of contraception.

**Table 3: Interpretation of Reid's Score**

Score	Interpretation	Frequency	Percentage
0-2	Subclinical HPV infection/ CIN 1	102	73.57%
3 to 5	CIN1/CIN 2	23	16.42%
5 to 8	CIN2/CIN 3	15	10.71%
Total	-	140	100%

On Reid's score majority 73.57% had score 0-2 i.e. Subclinical HPV infection/CIN 1, 16.42% had score 3 to 5 i.e. CIN1/CIN2 and 10.71% had score 6 to 8 i.e. CIN2/CIN3.

**Table 4: Colposcopic findings**

	Colposcopy	
	Number of cases	Percentage
<b>LSIL</b>	35	25%
<b>HSIL</b>	25	16.66%
<b>Others</b>	80	57.314%
<b>Total cases</b>	<b>140</b>	<b>100%</b>

## DISCUSSION

The mean age in years was 43.1±8.2, ranging from 27 to 62 years. Majority (50.9%) of women were in age group of 30 to 60 years. Study by Venkatesh M *et al.*, [5] showed that 42.7% women belong to age group 31-40 years followed by 30.9% women belong to 41-50 years of age and 9.1% women belong to 51-60 years of age.

Majority (87.9%) belonged to lower socioeconomic status group. Ramadevi E *et al.*, [6] showed that majority 21 patients belonged to class V. Poor personal hygiene, poor living conditions, instability in marriages, unemployment, and early age at first intercourse are the factors associated with low socioeconomic status and cervical cancer both.

Common complaint seen among respondents was per vaginal discharge in 49.46%, pain in abdomen in 16.37%, intermenstrual bleeding in 12.09%, post coital bleeding in 11.74% and post-menopausal bleeding was seen in 6.04% respondents. Study by Venkatesh M *et al.*, [5] showed that white discharge was the most common chief complaint in 46.4%, followed by lower abdominal pain in 24.5%, low back ache in 10.9%, postcoital bleeding in 10% and postmenopausal bleeding seen in 8.2%. Gupta P *et al.*, [7] showed that majority 49.09% had leucorrhoea, 11% had post coital bleeding and intermenstrual bleeding, 40% had unhealthy cervix and 34.55% had erosion.

Mean years of duration of marriage was 24.6±8.5, ranging from 7 to 45. Majority 90% were married for more than 10 years. Ramadevi E *et al.*, [6] stated that the incidence of CIN was 22% in women who were married for 11-20 years and 25% among women who were married for more than 20 years and even showed that 12% of women with cervical erosion took OC Pills, 5.9% used IUCD and 59% were permanently sterilized. Similarly in present study majority 91.45% had undergone tubal ligation as a method of contraception.

On Reids core majority 73.57% had score 0-2 i.e. Subclinical HPV infection/CIN 1, 16.42% had score 3 to 5 i.e. CIN1/CIN2 and 10.71% had score 6 to 8 i.e. CIN2/CIN3. In a study by Patil P *et al.*, [1] out of 120 women of cervical erosion who underwent colposcopic examination, 55.8% women had normal colposcopy, 20.9% women had a score between 0 to 2, 12.5% women had score between 3 and 4, while 8.3% women had a score between 5 to 8. Kalyankar *et al.*, [8] showed that 50.95 were HSIL and 23.63% were LSIL on colposcopy on contrary, in present study 16.6% were HSIL and 25% were LSIL.

## CONCLUSION

Cervical erosion is a very common finding on per speculum examination. It can be the outcome of infection or pre-neoplastic conditions. Cervical cancer is a preventable and curable malignancy if identified and managed early. However early lesions of cervical cancer, i.e. CIN and early invasive stages are asymptomatic. Hence regular screening after 40 years should be made mandatory and a best screening procedure to detect early lesions should be made available in low resource settings. It can be the outcome of infection or pre-neoplastic conditions. From our study, we conclude that all women with symptoms and presence of cervical erosions on examination should undergo colposcopic examination and guided biopsies wherever necessary to detect more number of cases in premalignant state and early cervical cancers. There is good correlation between colposcopy and histopathology and both are complimentary to each other. Colposcopy eliminates the need for repeated follow up as in Pap smear which has low sensitivity.

## REFERENCES

1. Patil, P., & Sharma, P. (2017). Colposcopic evaluation of cervical erosion in symptomatic women. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, 6(6), 2207-2212.
2. Khan, M. S., Raja, F. Y., Ishfaq, G., Tahir, F., Subhan, F., Kazi, B. M., & Karamat, K. A. (2005). Pap smear screening for pre-cancerous conditions of the cervical cancer. *Pak J Med Res*, 44(3), 111-113.
3. Kesic, V. I., Soutter, W. P., Sulovic, V., Juznic, N., Aleksic, M., & Ljubic, A. (1993). A comparison of cytology and cervicography in cervical screening. *International Journal of Gynecologic Cancer*, 3(6), 395-398.
4. Moss, S. F., & Blaser, M. J. (2005). Mechanisms of disease: inflammation and the origins of cancer. *Nature clinical practice Oncology*, 2(2), 90-97.
5. Venkatesh, M. (2020). A comparative study of Pap smear and colposcopy guided biopsy in the evaluation of unhealthy cervix. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, 9(6), 2305-2310.
6. Ramadevi, E., Mamata, N., Madhavi, G. B., Sudha Rani, V., Padmalatha, R., & Shamili, G. (2017). A study of correlation between cytology and histopathology with colposcopic findings. *Int J Intg Med Sci*, 4(4), 477-483.
7. Gupta, P., Faruqi, M., Chandra, S., Shah, S. S., & Kulshrestha, R. (2020). The correlation between colposcopy, cervical cytology and histopathology in the diagnosis and management of cervical lesions: a cross sectional study. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, 9(7), 2729-2736.
8. Kalyankar, V. Y., Kalyankar, B. V., Gadappa, S. N., & Kute, S. (2017). Colposcopic evaluation of unhealthy cervix and its correlation with Papanicolaou smear in cervical cancer screening. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, 6(11), 4959-4966.