

# “Spectrum of Cervical Lesion” – One Year Retrospective Study in Tertiary Care Center

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**Abstract:** Background: Carcinoma of cervix is the most common cancer in Indian women and account for 20% of all malignant tumours in female. Methods: It was a retrospective study of 1 year duration conducted in the department of pathology. 1000 specimens of uterus with cervix were included in the study. Result: During the period of present study total 1000 specimen received from the gynaecology department were processed and reported by Department of Pathology. Out of 1000 cases, 149 (14.9%) cases were reported as non neoplastic lesions and 851(85.1%) cases were reported as neoplastic lesion. Out of 149 cases 117 cases (78.52%) were cervicitis, 08(5.3%) cases were endocervical polyp, and 24 cases(16.10%) were nabothian cyst. The most common malignancy was squamous cell carcinoma comprised of 69.4% followed by adenocarcinoma 1.41 % and 0.23% adenosquamous carcinoma. Conclusion: Our study highlights the wide spectrum of histopathological subtypes of carcinoma of cervix in small study population. Nonspecific cervicitis is the most common nonneoplastic cervical lesion while squamous cell carcinoma is the most common neoplastic cervical lesion. Adequate cervical screening with follow up histological biopsies is a relevant tool in diagnosing them to enhance early detection of premalignant and malignant cervical lesions.

**Keywords:** cervical biopsy, nonspecific cervicitis, squamous cell carcinoma

## 1. Introduction

Carcinoma of cervix is the most common cancer in Indian women and account for 20% of all malignant tumours in female. Worldwide, invasive cervical cancer is the second most common female malignancy after breast cancer and the fifth most deadly cancer in women<sup>1</sup>. Non neoplastic cervical lesions occur at all age groups amongst women but are more common in reproductive and sexually active women. Non neoplastic cervical lesions include inflammatory lesions and non- neoplastic tumor like lesions. Majority of these inflammatory lesions are acute cervicitis, chronic cervicitis caused by various bacteria, viruses and fungi.<sup>2</sup> Cervicitis caused by Human papilloma virus carries high risk for Condyloma acuminata, Cervical intraepithelial neoplasia (CIN) and carcinoma.<sup>3</sup> Cervical carcinomas are classified by WHO classification which is widely accepted<sup>4</sup>.

## 2. Material Methods

A one year retrospective study of cervical biopsy was carried out from March 2016 to March 2017 in the department of Pathology, Pt. J. N. M. Medical College Raipur (Chhattisgarh). During the period of one year 1000 cases of cervical biopsies were received for histopathological examination in our department with a brief clinical history.

All hysterectomy specimen and cervical biopsies were processed routinely and paraffin section were taken and stained with haematoxylin and eosin (H&E) for microscopic examination.

## 3. Result

During the period of present study total 1000 specimen received from the gynaecology department were processed and reported by department of pathology. Out of 1000 cases, 149 (14.9%) cases were reported as non neoplastic lesions and 85(8.5%) cases were reported as neoplastic lesion. (Table1)

Out of 149 cases 117 cases (78.52%) were cervicitis, 08(5.3%) cases were endocervical polyp, and 24 cases (16.10%) were nabothian cyst (table 2). The most common malignancy was squamous cell carcinoma comprised of 69.4% followed by adenocarcinoma 1.41% and 0.23% adenosquamous carcinoma (table 3).

## 4. Discussion

Aim of present study is to detect the various nonneoplastic and neoplastic lesions of the cervix. Cervical cancer is the second most common cancer among women with an estimated worldwide burden of 493000 new cases and 274000 deaths each year. In our case total no of noneoplastic lesion were 149 and neoplastic lesion were 851. Cancer that develops in the ectocervix is usually squamous cell carcinoma, and around 80- 90% of cervical cancer cases (more than 90% in India) are of this type.<sup>5</sup> Cancer that develops in the endocervix is usually adenocarcinoma. In addition, small percentages of cervical cancer cases are mixed versions of the above two and are called adenosquamous carcinomas or mixed carcinomas.

In our study most common malignancy was squamous cell carcinoma 69.44%. Among which mdscc constitute majority of cases 75.5% followed by well differentiated squamous

cell carcinoma and poorly differentiated carcinoma which is quite similar to study done by Laxshmi et al as squamous cell carcinoma 85.5%, MDSCC 76.8%, WDSCC 12 %, PDSCC 9.7%.

In our study most common variant of SCC was MDSCC (75.7%) which is similar to study done by Husin en et al<sup>6</sup>. Highest occurrence 39% of well differentiated squamous cell carcinoma was noted by Abudu EK et al<sup>7</sup>.

Adenocarcinoma of the cervix should be differentiated from squamous cell carcinoma and adenosquamous carcinoma as the recurrence rate is high in adenocarcinoma and usually present in stage III and IV which has poor prognosis<sup>8</sup>.

In present study only 12 cases (1.41%) were diagnosed as adenocarcinoma which is comparable to study done by Kiranmyi et al<sup>9</sup> and ALFsen et al<sup>10</sup>.

Adenosquamous carcinoma is rare entity. In our study only 2 cases were detected which is quite comparable to study done by Alfsen et al<sup>10</sup>.

Non neoplastic diseases of cervix are predominabtly inflammatory in nature. In our study most common non neoplastic lesion (78.2%) was cervicitis which is similar to study done by Kumari et al<sup>11</sup>. Similar finding is also noted by Badge et al<sup>12</sup>.

Non neoplastic tumour like lesion such as endocervical polyp was rare entity as seen in only 5.8% cases. Sarvana et al<sup>13</sup> also found endocervical polyp in only 6.5% cases.

In present study incidence of preinvasive lesion was 24%.Kirammyi et al<sup>9</sup> found 15.11% preinvaive lesion in his study.

## 5. Conclusion

Histopathology is the best method to detect cervical lesion. Our study highlights the wide spectrum of histopathological subtypes of carcinoma of cervix in small study population. Nonspecific cervicitis is the most common nonneoplastic cervical lesion while squamous cell carcinoma is the most common neoplastic cervical lesion. Adequate cervical screening with follow up histological biopsies is a relevant tool in diagnosing them to enhance early detection of premalignant and malignant cervical lesions.

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## Tables

**Table 1:** Spectrum of neoplastic and nonneoplastic lesions

Total no of cervical lesion	Nonneoplastic lesion	Neoplastic lesion
1000	149 (14.9%)	851(85.1%)

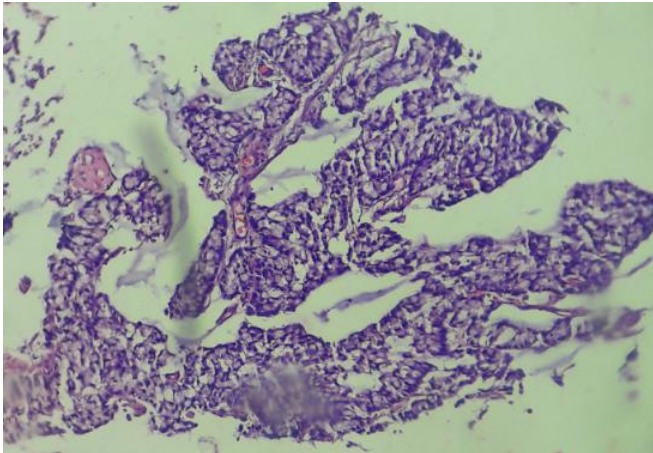
**Table 2:** Spectrum of non neoplastic lesions

Diagnosis	No of cases / %	Total no of cases
Cervicitis	117 (78.52%)	
Endocervical polyp	08 (5.3%)	149
Nabothian Cyst	24 (16.10%)	

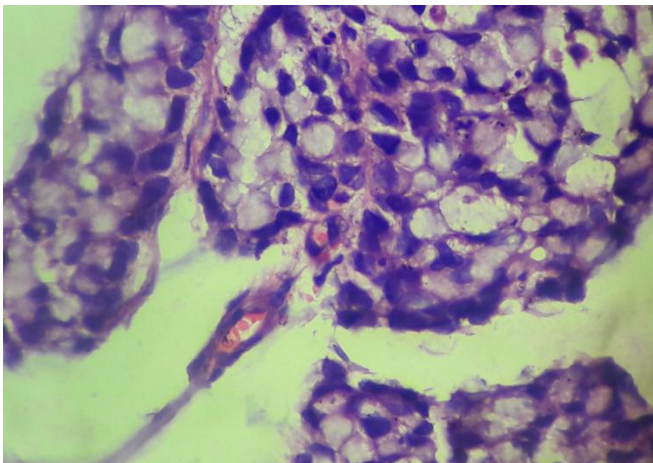
**Table 3:** Spectrum of neoplastic lesions

Diagnosis	Total no of cases	Histological typing
CIN	219 (25.7%)	CIN I -58 CIN II -100 CIN - 61
Ca In Situ	24 (2.8%)	
SCC	594(69.44%)	WDSCC -90 MDSCC -450 PDSCC -54
Adenocarcinoma	12 (1.41%)	
Adenosquamous Carcinoma	02(0.23%)	
Total no of cases	851	

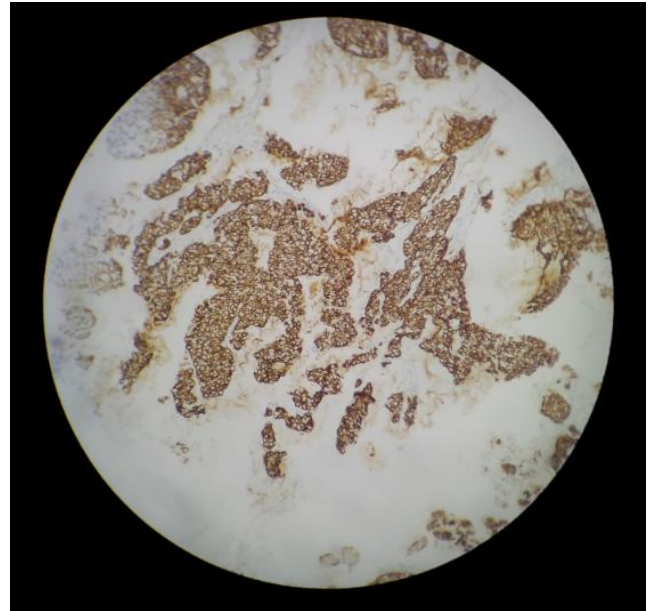
**Figures**



Photomicrograph of signet ring cell carcinoma of cervix (H&E) x 40X.



Photomicrograph of signet ring cell carcinoma of cervix (H&E) x 100 X.



Immunohistochemistry of signet ring cell carcinoma of cervix shows strong positivity for ck 7/p16.