

ORIGINAL RESEARCH**Assessment of non- neoplastic and neoplastic lesions of uterine cervix****Dr. Priyankar Sharma¹, Dr. Ankit Singh²**¹Assistant Professor, Department of Pathology, Heritage Institute of Medical Sciences, Varanasi, Uttar Pradesh, India²PG JR-3, Department of Pathology, Heritage Institute of Medical Sciences, Varanasi, Uttar Pradesh, India**Correspondence:**

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Email: drpriyankar@live.com**ABSTRACT**

Background: Histopathological studies of the cervix along with clinical correlation is very important for definitive diagnosis in diseases of the cervix. The present study was conducted to assess non neoplastic and neoplastic lesions of uterine cervix.

Materials & Methods: 78 specimens received from hysterectomy, cervical biopsy, cervical polypectomy from department of obstetrics & gynecology were formalin fixed & paraffin embedded tissue sections were used for microscopic study. Microscopic findings were recorded and histopathological diagnoses were made.

Results: Cervical specimens were 13 cervical biopsy, 60 hysterectomy and 5 polypectomies. The difference was significant ($P < 0.05$). Non- neoplastic inflammatory lesions were seen in 55 and non-neoplastic cervical glandular lesions in 10. Neoplastic lesions were benign in 8, precursor lesions in 3 and malignant lesions in 2 cases. The difference was significant ($P < 0.05$). Inflammatory lesions were acute cervicitis in 5, chronic non- specific cervicitis in 30 and chronic papillary endocervicitis in 20 cases. Benign lesions were endocervical polyp in 4, fibroepithelial polyp in 2 and leiomyomatous polyp in 2 cases. The difference was significant ($P < 0.05$).

Conclusion: Histopathological examination of biopsy specimen is gold standard for the diagnosis. Cervical malignancies are most common malignancies of female genital tract.

Key words: Histomorphological, Non- neoplastic, uterus

INTRODUCTION

The uterus is pyriform in shape and it is divided into body and cervix. Cervix is divided into ectocervix and endocervix. The endocervix is lined by columnar epithelium while the ectocervix is lined by squamous epithelium and the junction of these two at the external os is termed as the squamo-columnar junction.¹ Gynecological specimens form the substantial proportion of the work load in most of the histopathological departments. The cervix is a target for viral and other carcinogens which may lead to invasive carcinoma. Infection constitutes one of the most common clinical complaints in gynecologic practice which may be due to constant exposure to the vaginal bacteria.²

Non-neoplastic diseases of the cervix are predominantly inflammatory in nature but they at times resemble carcinoma clinically.³ Thus, categorization and familiarity of the cervical non-neoplastic lesions with their histomorphological findings are essential in their recognition and could improve the approach towards better management of the patient. Also,

early detection of these non-neoplastic lesions can prevent further complications.⁴ Histopathological studies of the cervix along with clinical correlation is very important for definitive diagnosis in diseases of the cervix.⁵ Cervical cytology continues to have inherent limitations which include non-representative sampling of the cervix and transference of cells from collection device to the glass slide.⁶ The present study was conducted to assess non-neoplastic and neoplastic lesions of uterine cervix.

MATERIALS & METHODS

The present study comprised of 78 specimens received from hysterectomy, cervical biopsy, cervical polypectomy from department of obstetrics & gynecology. This study was conducted in the department of pathology.

Data such as name, age, gender etc. was recorded. Formalin fixed & paraffin embedded tissue sections were used for microscopic study. The sections were stained with haematoxylin & eosin stains. Special stains like mucicarmine, PAS, were employed wherever necessary. Microscopic findings were recorded and histopathological diagnoses were made. The histopathological classification of tumours was done based on W.H.O 2014 criteria. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of cervical specimens

Specimens	Number	P value
Cervical biopsy	13	0.01
Hystrectomy	60	
Polypectomy	5	

Table I shows that cervical specimens were 13 cervical biopsy, 60 hysterectomy and 5 polypectomy. The difference was significant (P < 0.05).

Table II Histopathological distribution of lesions of cervix

Lesions	Variables	Number	P value
Non- neoplastic	Inflammatory	55	0.01
	Non-neoplastic cervical glandular lesions	10	
Neoplastic	Benign	8	0.05
	Precursor lesions	3	
	Malignant	2	

Table II, graph I shows that non- neoplastic inflammatory lesions were seen in 55 and non-neoplastic cervical glandular lesions in 10. Neoplastic lesions were benign in 8, precursor lesions in 3 and malignant lesions in 2 cases. The difference was significant (P < 0.05).

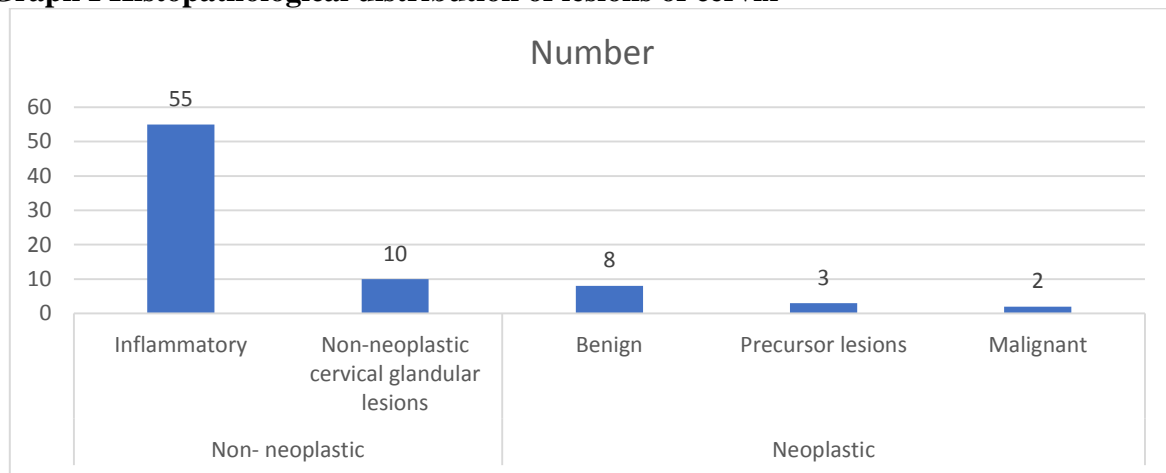
Table III Inflammatory and benign cervical lesions

Lesions	Variables	Number	P value
Inflammatory	Acute Cervicitis	5	0.01
	Chronic non- specific cervicitis	30	
	Chronic papillary endocervicitis	20	
Benign	Endocervical polyp	4	0.05
	Fibroepithelial polyp	2	
	Leiomyomatous polyp	2	

Table III, graph II shows that inflammatory lesions were acute cervicitis in 5, chronic non-specific cervicitis in 30 and chronic papillary endocervicitis in 20 cases. Benign lesions were

endocervical polyp in 4, fibroepithelial polyp in 2 and leiomyomatous polyp in 2 cases. The difference was significant ($P < 0.05$).

Graph I Histopathological distribution of lesions of cervix



DISCUSSION

The cervix is spindle shaped and measures approximately 2.5 cm or a little more.⁷ Cervix either from hysterectomies continue to form major bulk of gynecology specimens that are received in the histopathology department.^{8,9} Patients with cervical pathologies may be asymptomatic or may present with vaginal discharge, backache, lower abdominal pain and others.^{10,11} The present study was conducted to assess non neoplastic and neoplastic lesions of uterine cervix.

We found that cervical specimens were 13 cervical biopsy, 60 hysterectomy and 5 polypectomy. Dayal et al¹² in their study found that vaginal discharge was the most common clinical complaint (43.00%), followed by bleeding complaints (23.38 %). Grossly normal cervix was seen in (32.51 %) and nabothian follicles were found in (20.07%). On histopathology examination, chronic cervicitis was the most common pathology (79.66 %). Cervix is site of shades of grey lesions that include cervical dysplasia to malignancy. But majority of cervical pathologies are benign lesions. However, many times benign lesions are misdiagnosed as malignant. Histopathological examination along with clinical findings is mandatory for the early and accurate diagnosis. Health camps along with cervix screening and educational awareness program should be carried out.

We found that non- neoplastic inflammatory lesions were seen in 55 and non-neoplastic cervical glandular lesions in 10. Neoplastic lesions were benign in 8, precursor lesions in 3 and malignant lesions in 2 cases. Patil et al¹³ found that inflammatory lesions formed the major part accounting to 74.30%, followed by malignancies (13.54%). Among the inflammatory cervical lesions, chronic non- specific cervicitis was the most common in 188/214 (87.86%) cases. Benign cervical lesions were found in 19/288 (6.59%) cases. Total 39/288 (13.54%) cases of invasive cervical malignancies were encountered. Among cervical malignancies, squamous cell carcinoma was the commonest in 36/39 (92.32%) cases. Of these, large cell non- keratinizing was the most common histological subtype.

We observed that inflammatory lesions were acute cervicitis in 5, chronic non- specific cervicitis in 30 and chronic papillary endocervicitis in 20 cases. Benign lesions were endocervical polyp in 4, fibroepithelial polyp in 2 and leiomyomatous polyp in 2 cases. Baral et al¹⁴ found that a total of 300 specimens were analyzed. In the group of patients less than 40 years of age, 73 (50%) were normal, 34 (23%) had abnormal physiologic changes and 13 (9%) had pregnancy related complications and benign changes. In the age group between 40

– 55 years, abnormal physiological changes, benign conditions and normal physiological changes were 45 (32%), 41 (29%) and 37 (26%) respectively. In the age group > 55 years, there were 3 (21%) malignant and 3 (21%) benign conditions. There were 5 (36%) unsatisfactory samples in this age group.

Verma et al¹⁵ assessed the histopathological features of varied uterine lesions, their profile and distribution of different lesions in relation of age. A total of 3576 histopathology samples were received in this period. There were 1173 gynaecology samples during this period out of which 22% (261 cases) were that of hysterectomy. Histopathology diagnosis showed leiomyoma in 48.6% (127 cases), adenomyosis was seen in 10.3% (27 cases), endometrioid adenocarcinoma was seen in 1.14% (3 cases).

The limitation the study is small sample size.

CONCLUSION

Authors found that histopathological examination of biopsy specimen is gold standard for the diagnosis. Cervical malignancies are most common malignancies of female genital tract.

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