

Original Research Article

Histopathological Study of Cervical Lesions: A One-Year Study

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Abstract

Introduction: Cervical lesions are potential causes of morbidity and mortality in women and biopsy being a routine procedure in the early diagnosis. Our study aims to determine the frequency and histomorphological patterns of various non-neoplastic and neoplastic cervical lesions. **Materials and Methods:** This study consists of a total of 250 cases of cervical biopsies submitted for histopathology over a period of one year. Clinical details of all the patients were obtained. **Results:** Among 250 cases included, majority 212 (84.2%) were non neoplastic lesions and 38 (15.2%) were neoplastic, out of which 11 (4.4%) were LSIL, 9 (3.6%) HSIL, 17 (6.8%) carcinomas and one was a case of cervical leiomyoma. Maximum females (50%) subjected to biopsy belonged to the age group of 31–50 years. The mean age for neoplastic lesions was 45 years. Chief complaint in most cases 130 (52%) was white discharge. **Conclusion:** Biopsy is a valuable procedure which aids in early diagnosis and plan the treatment.

Keywords: Cervical biopsies; Histopathology; Carcinomas.

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Introduction

Cervix is vulnerable to many pathological changes ranging from inflammation to malignancy. Uterine cervix is gateway to several non-neoplastic and neoplastic gynecological lesions.^{1,2} Non-neoplastic cervical lesions are seen in all age groups but are more commonly seen in sexually active women. These include inflammatory and tumorlike nonneoplastic lesions. Majority of non-neoplastic lesions are inflammatory in nature.^{3,1} Inflammatory lesions of clinic pathological importance are acute cervicitis, chronic cervicitis and chronic

granulomatous cervicitis.^{3,4,1} These can result from both infective and noninfective etiology. Infective causes of acute and chronic cervicitis include a wide spectrum ranging from bacterial, viral, protozoan and fungi microorganisms commonly encountered in sexually transmitted infections (STIs) and urinary tract infections (UTIs). Studies have shown that chronic granulomatous cervicitis is mostly caused by tuberculosis.^{5,7} Sexual transmitted viruses include human papillomavirus (HPV) and herpes simplex virus. HPV cervicitis is a causal risk factor for condyloma acuminatum, preinvasive cervical intraepithelial neoplasia (CIN I, II, III) and

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eventually cervical cancer.^{5,6} Thus, categorization and familiarity of the cervical non-neoplastic lesions with their histomorphologic findings are essential in their recognition and will improve the approach toward better management of the patient.⁵ Chronic cervicitis is the most common uterine cervical lesion in the reproductive age group occurring between 25 and 55 years of age linked to sexual activity and also in postmenopausal women because of reduction in immunity and hormonal replacement therapy.⁸

Aims and Objectives

1. To explore various neoplastic and non neoplastic cervical lesions received in Government Medical College, Mahabubnagar.
2. Its correlation with age.
3. Frequency of non-neoplastic and neoplastic cervical lesions.

Materials and Methods

This is a retrospective study conducted at Department of Pathology, Government Medical College, Mahabubnagar, Telangana from October 2017 to September 2018. The data of 250 cervical biopsies were retrieved from past records who were diagnosed with various cervical lesions. All the cervical biopsies were received from Obstetrics and Gynaecology department of our institute. Specimens were fixed in 10% formalin and histopathological specimens were processed, blocks were prepared and slides were stained in hematoxylin and eosin stains.

Results

Among 250 cases, 212 cases (84.8%) were non neoplastic while 38 cases (15.2%) were pre-invasive and invasive lesions. The non-neoplastic lesions include 180 cases (72%) of chronic non-specific cervicitis followed by papillary endocervicitis 30 cases (12%), cervical tuberculosis 2 cases (0.8%). In pre-invasive lesions majority were LSIL/CIN 1 11 cases (4.4%), HSIL i.e. CIN 2 and 3 were 9 cases (3.6%). 16 cases were diagnosed as squamous cell carcinoma while 1 case was diagnosed adenocarcinoma and 1 case as cervical leiomyoma (Table 1). The age of the females subjected to biopsies ranged from 21 to 70 years with maximum of them belonging to the age group of 31–50 years (72%). Age of the women with pre-invasive and

invasive lesions ranged from 21 to 50 years with lesions being most common in 36–45 years. Mean age of the females with pre-invasive and invasive lesions was 45 years (Table 2). The most common presenting complaint was white discharge—130 cases (52%) followed by backache, abdominal pain (28%) and bleeding per vaginam (12%) (Table 3).

Table 1: Distribution According to histopathological diagnosis

S. No.	Diagnosis	Cases	Percentage
1	Chronic non-specific cervicitis	180	72%
2	Papillary endocervicitis	30	12%
3	Cervical tuberculosis	1	0.4%
4	Cervical polyp	1	0.4%
5	CIN 1	11	4.4%
6	CIN 2	5	2%
7	CIN 3	4	1.6%
8	Squamous cell carcinoma	16	6.4%
9	Adenocarcinoma	1	0.4%
10	Cervical leiomyoma	1	0.4%
	Total	250	100%

Table 2: Distribution according to age

S. No.	Age	Cases	Percentage
1	21-30	25	10%
2	31-40	105	42%
3	41-50	75	30%
4	51-60	30	12%
5	61-70	15	6%
	Total	250	100%

Table 3: Distribution according to symptoms

S. No.	Symptoms	Cases	Percentage
1	White Discharge	130	52%
2	Back Ache Abdominal Pain	70	28%
3	Bleeding Per Vagina	30	12%
4	Pelvic Pain	20	8%
	Total	250	100%

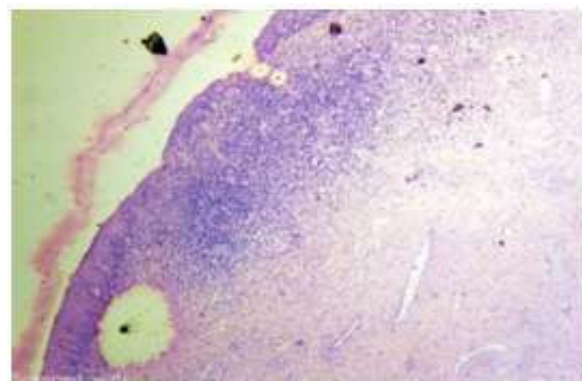


Fig. 1: Chronic cervicitis 100X.

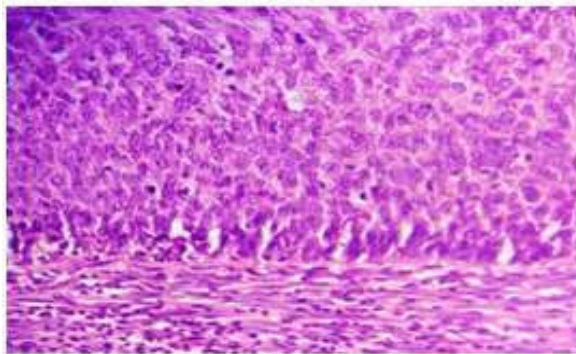


Fig. 2: HSIL(CIN 3) dysplasia in entire thickness (400X)

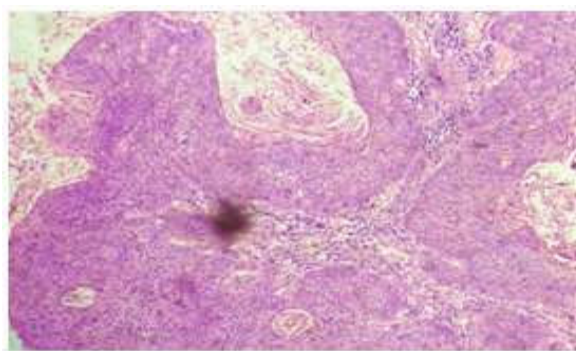


Fig. 3: Well-Differentiated squamous cell carcinoma (100X)

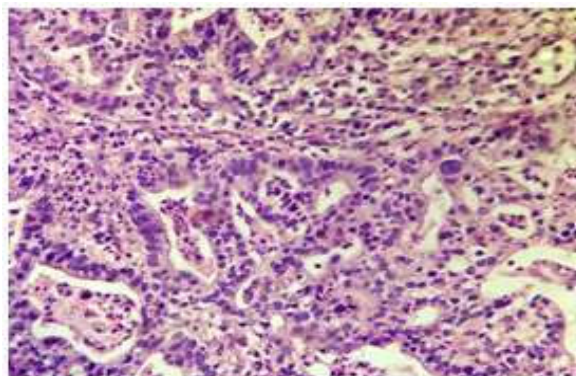


Fig. 4: Adenocarcinoma cervix 400X

Discussion

The present study comprises histopathological study of 250 cervical biopsies. The maximum numbers of cases were of non-neoplastic lesions- 84.8%, this was comparable to the results of Avani Jain et al., Kumari K et al., Bagde et al. and Sujatha J et al. in which maximum cases were non-neoplastic lesions (Table 4). In this study majority of the biopsies were diagnosed as chronic non-specific cervicitis (72%), which was comparable to study done by Priyadarshini et al., Nwawchokor et al. and Kumari K et al. where chronic non-specific

cervicitis was diagnosed in 48%, 43.5% and 42.7% respectively (Table 5). 4.4% cases were CIN1 (LSIL) which could be reversed to normal epithelium by giving a proper treatment by the gynecologist. 3.6% cases were diagnosed as HSIL, and 16 cases were of invasive carcinoma comprising of Squamous cell carcinoma and 1 case of adenocarcinoma. Most common presenting complaint in our study was white discharge which was comparable to study by Fatima et al. and Bagde et al. where also the most common presenting complaint was white discharge being 66.03% and 60% respectively (Table 6).

Table 4: Comparison of lesions with other studies

	Non-neoplastic	Preinvasive (LSIL and HSIL)	Invasive
Avani Jain et al. ⁹	73%	23.5%	51.2%
Kumari K et al. ²	49.39%	15.29%	35.31%
Bagde et al. ¹⁰	46.51%	24.1%	13.95%
Sujatha J et al. ¹¹	44.7%	28.8%	10%
Our Study	84.8%	8%	5.5%

Table 5: Incidence of chronic non-specific cervicitis

Chronic Non-specific cervicitis	
Priyadarshini et al. ⁸	48%
Nwawchokor et al. ¹	43.5%
Present study	72%

Table 6: Most common presenting complaint

Bagde et al. ¹⁰	White discharge- 60%
Present Study	White discharge- 52%

Conclusion

Cervical biopsy is a valuable diagnostic procedure. Aim of this study was to know the spectrum of diseases and their frequency. In our study non-neoplastic lesions were more common as compared to neoplastic lesions with chronic cervicitis being the most common of all the lesions. Among the neoplastic lesions most of the cases were squamous cell carcinoma. Histopathological examination helps in early diagnosis of malignant and premalignant conditions and their treatment.

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