

**ORIGINAL RESEARCH ARTICLE****HISTOPATHOLOGICAL STUDY OF NON NEOPLASTIC LESION IN CERVIX AT BIRAT MEDICAL COLLEGE TEACHING HOSPITAL NEPAL**Krishna Kumar Jha<sup>1\*</sup>, Mrinalini Singh<sup>1</sup><sup>1</sup>Department of Pathology, Birat Medical college and Teaching Hospital, Biratnagar, Morang, Nepal.**\*Correspondence to:** Dr Krishna Kumar Jha, Department of Pathology, Birat Medical college and Teaching Hospital, Biratnagar, Morang, Nepal.Email: [bisnudevs@gmail.com](mailto:bisnudevs@gmail.com)**ABSTRACT**

**Introduction:** Like in other developing countries non –neoplastic region of cervix in pap smear is most common findings. In Nepal... In Nepal cervical pap-smear screening is not done by most of woman due to lack of awareness. The objective of this study is to find the prevalence of non-neoplastic lesion of cervix. **Methods:** This was a retrospective study of 486 conventional cervical Pap smears reported from the Department of Pathology. The time period was from March 2015 to May 2018. We used Bethesda system to report our all our slides. All the cases were reviewed by consultant pathologist of Birat medical college. This research is done according to rule of BMCTH. **Results:** Total cases were 486 in two years period in which 456 cases were satisfactory for evaluation and 30 cases were unsatisfactory for evaluation which is due to thick neutrophilic exudates, mucous, degenerative cells and hemorrhage. The age of the patients ranged from 20 to 80 years with an average age of 35.5 years. Non specific inflammatory smear is 440 that is 90.53%, Bacterial vaginosis is 10 that is 2.05%, Candidiasis is 04 that is 0.82% and trichomonas vaginalis is 02 that is 0.41%. **Conclusion:** Simple screening test like cervical papanicolaou smear (Pap) can detect the non-neoplastic lesion of cervix. If non-neoplastic lesion of cervix is not treated as soon as possible than the chances of being infertility, salpingitis and even neoplasia is more. So non-neoplastic lesion of cervix is as important as neoplastic lesion of cervix.

**Key words:** Bethesda system, Non-specific inflammatory smear, Pap smear**INTRODUCTION**

Cervix is one of the most common target organ for both non neoplastic and neoplastic lesions of the female genital tract. Carcinoma of the cervix is the most common cause of the death in Nepal. Cervical carcinoma does not develop suddenly from normal epithelium but is presented by a spectrum of intraepithelial neoplastic changes that are precancerous lesion and were termed as cervical intraepithelial neoplasia (CIN).<sup>1,2</sup> The inflammatory lesions of cervix consist of acute cervicitis, chronic cervicitis, chronic cervicitis, candidiasis, trichomonas vaginalis, Bacterial vaginosis. Non inflammatory lesion of cervix if you not treated properly than it may leads to carcinoma of cervix. So that non inflammatory lesion of cervix is also has diagnostic importance.<sup>3,4</sup> Non-infective cervicitis often being chemical in nature that cause due to foreign bodies including tampons diaphragms, pessaries and

intrauterine contraceptive devices. Studies have shown the most common cause of granulomatous cervicitis is tuberculosis.<sup>5</sup>

In histopathological reporting according to WHO, the most common non-neoplastic lesion of cervix is as follows endocervical hyperplasia, endometriosis, nabothian cyst, endocervical polyps.<sup>6</sup>

**METHODS**

This was a retrospective study of 486 conventional cervical Pap smears reported from the Department of Pathology, Birat Medical College in Biratnagar, Nepal. The time period was from March 2015 to May 2018. We used Bethesda system to report our all our slides. We used the pap stain to use the slide. All the case were reviewed by consultant pathologist of Birat medical college. Relevant clinical history of

the patient was obtained from the requisition forms of the patients and performa was filled. The data was entered into Microsoft office excel and analysed using statistical package for social sciences (SPSS 17.0). All the smears were reported as per the 2014 Bethesda system in conventional cervical Pap smears.

## RESULTS

Total cases were 486 in two years period in which 456 cases were satisfactory for evaluation and 30 cases were unsatisfactory for evaluation which is due to thick neutrophilic exudates, mucous, degenerative cells and hemorrhage.

**Table 1: Ratio of patient according to age**

Age	Number of patients	Percentage
20 and below	25	5.14%
21-30	100	20.57%
31-40	250	51.44%
41-50	180	16.46%
51-60	21	4.32%
61-70	06	1.23%
71-above	04	0.82%
<b>Total</b>	<b>486</b>	<b>100%</b>

**Table 2: Diagnosis of patients according to number of cases**

Diagnosis	Number of cases	Percentage (%)
Unsatisfactory	30	6.17%
NFIM	425	87.44%
Bacterial vaginosis	10	2.05%
Candidiasis	04	0.82%
Trichomonas vaginalis	02	0.41%
Abnormal intraepithelial and malignancy	15	3.08%
<b>Total</b>	<b>486</b>	<b>100%</b>

Abnormal intraepithelial and malignancy consists of Atypical Squamous cells of undetermined significance, Low grade squamous intra epithelial neoplasia, High grade squamous intraepithelial neoplasia, squamous cell carcinoma.

## DISCUSSION

This study was done on Birat medical college teaching hospitals to study about non-neoplastic lesions of cervical smears. Majority of case in our

study is non specific inflammatory smear. In our study total number of cases is 486 out of that non-specific inflammatory smear was 440 that is 90.53%. Non specific inflammatory smear consists of acute cervicitis, chronic cervicitis and chronic follicular cervicitis. The maximum patients suffers with non specific inflammatory is in age group of 31-40 years. In our study non specific inflammatory smear is little bit higher side than other study done by Ranabhat SK et al.<sup>7</sup>

**Table 3: Inflammatory smear according to age**

AGE	Non specific inflammatory smear	%
20 yrs and below	20	4.54%
21 to 30 years	100	22.72%
31to 40 years	200	45.45%
41-50 years	80	18.18%
51-60 years	20	4.54%
61-70 years	10	2.27%
71 and above	10	2.27%

**Total 440 (100%)**

Paaronen J et al<sup>8</sup> has stated that the etiology of non specific inflammatory smear is different. It is very important because it may lead to endometrites, salpingitis and pelvic inflammatory disease. It may also lead to neoplasia if not treated early.

In our study there is 10 cases of bacterial vaginosis that is 2.05% is little bit lower than study done by Ranabhat SK et al.<sup>7</sup> In our study the number of candidiasis is 4 that is 0.82 % is same as study done by Ranabhat Sk et al<sup>7</sup> in our study number of trichomonas vaginalis is 2 that is 0.41%. The study correlated with study of Low D et al<sup>9</sup>, who reported the inflammatory lesions are rare before menarche and after menopause. Whereas inflammatory lesions were most common in 30 to 60 years of age group same as other study also showed.

**CONCLUSION**

During period of study years we have reported 486 cases out of which we find 90.53% of non-specific inflammatory smear followed by 10 cases bacterial vaginosis which is 2.05%, Candidiasis 04 cases which is 0.82% and trichomonas vaginalis 02 cases which is 0.41%.

Non neoplastic lesions of cervix is also very important because it may leads to pelvic inflammatory disease, salpingitis, infertility and also leads to carcinoma. Pap smear test is useful screening test for detect of non-neoplastic lesions of pap smears. In developing countries government should make to do pap smear test after 21 years in regular basis.

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