

Original Article

# Histopathological study of malignant lesion of Cervix in a tertiary care hospital of Nepal

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**ABSTRACT**

**Background and objectives:** Like in other developing countries, cancer of cervix is one of the leading malignancies in women in Nepal. In Nepal cervical pap-smear screening is not done my most of due to lack of awareness. The objective of this study is to find the prevalence of abnormal cervical epithelial lesions.

**Materials and methods:** This was a retrospective study of 140 hysterectomy specimen reported from the Department of Pathology, Birat Medical College in Biratnagar. All tissue blocks of cervical tissues were retrieved, stained by Haematoxyline and Eosin (H & E) stain and re-examined. All the case was reviewed by consultant pathologist of Birat medical college.

**Results:** In the present study out of 140 cases 08 ie. 5.71% have cervical epithelial neoplasia I. 1.42% cases is of CINII, 0.71 is of CINIII and 2.85% is squamous cell carcinoma.

**Conclusion:** This study has demonstrated that 10.69% of the examined cases were abnormal. The squamous cell carcinoma is leading cancer in our study ie. 2.85%. In developing countries if

patient is detected with abnormal pap smears then hysterectomy is indicated.

**Keywords:** Adenocarcinoma, Carcinoma, Cervical intraepithelial; neoplasia, Pap Smear, Squamous cell carcinoma,

**INTRODUCTION**

Cervix is one of the most common target organs 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 (CINI and CIN II [1, 2]. The cervix is the elongated fibro muscular portion of the uterus that lined by an outer squamous epithelium and internal mucin secreting columnar epithelium [3]. This epithelium is vulnerable to pathological changes ranging from inflammation to an extremely lethal malignant transformation. But still cervical cancer remains the most common gynecologic malignancy in the world [4], and the second most frequently diagnosed cancer in women worldwide after breast cancer. The majority of cases occur in developing countries [4]. According to WHO, in histopathological reporting the most common non-neoplastic lesion of cervix are endocervical hyperplasia, endometriosis, nabothian cyst, endocervical polyps respectively [4].

## MATERIALS AND METHODS

This was a retrospective study of 140 hysterectomy specimen reported from the Department of Pathology, Birat Medical College in Biratnagar, Nepal. All tissue blocks of cervical tissues were retrieved, stained by Haematoxyline and Eosin (H & E) stain and re-examined. All specimens were formalin-fixed and paraffin wax processed tissues. Information regarding each patient was obtained from each patient's file. The specimens were fixed in 10% formalin and then processed by tissue processing machine using a schedule adopting 24-hour scheduling. Three 5-micron thickness sections were obtained from each patient's block using Rotary Microtome. The data was entered into Microsoft office excel and analyzed using statistical package for social sciences (SPSS 17.0). All the case were reviewed by consultant pathologist of Birat medical college

## RESULTS

In our study we have total 140 cases .Out of 140 cases 08 ie. 5.71% of 140 is cervical epithelial neoplasia I, 02 cases were of CINII ie. 1.42%, 01 cases ie. of 0.71% were CINIII and 04 cases ie. 2.85% were squamous cell carcinoma.

The non-neoplastic lesion of cervix is mainly consist of acute cervicitis, chronic cervicitis, cervical polyp and nabothian cyst.

**Table 1 Age -wise distribution of total number of patients**

Age (Years)	Numbers of patients	Percent %
20 and below	06	4.28%
31-40	40	28.57%
41-50	74	52.85%
61-70	20	14.28%
Total	<b>140</b>	100%

**Table 2: Findings of abnormal histopathological report**

Diagnosis	Number of cases	Percent %
CIN I	08	5.71%
CIN II	02	1.42%
CINIII	01	0.71%
SCC	04	2.85%

CIN -Cervival intraepithelial neoplasia

SCC-Squamous cell Carcinoma

## DISCUSSION

In abnormal epithelial lesion, CIN I constituent 5.71% of total number of cases. In other studies by Al-Jashamy K et al. [5] in which CIN constitute 42% which is much higher than our studies. In abnormal epithelial lesion CIN II the total of 1.42% of cases out of 140 cases were there. In CINIII the total number of cases were only 1 out of 140 which is 0.71% of total number of cases. In other studies done in Pakistan by Badar F et al. [6], in which squamous cell carcinoma constitute 75% but in our studies squamous cell carcinoma was 2.85% only which is totally in lower side. In other studies the 2<sup>nd</sup> carcinoma is adenocarcinoma but in our study there is no cases of adenocarcinoma.

The average age of benign condition is 30 to 49 years which is as similar as identical study done by Omoniyi-Esan OG *et al.*; study [7]. In our studies the average age of CIN I is 39.5. The average age of CIN II is 40 years and the average age of CIN III is 45 years and the average age of squamous cell carcinoma is 49 years. In other studies done by Sarla Agarwal *et al.* [8] the mean age of carcinoma is 50 years which is similar to this study.

## CONCLUSION

This study has demonstrated that 10.69% of the cases examined were in abnormal conditions. The squamous cell carcinoma is leading cancer in this study i.e 2.85%. In developing countries if the patient is detected

with abnormal pap smears then hysterectomy is indicated. Cervicitis is the most common benign condition.

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