

## Two Years Trend of Cervical Screening and Precancerous and Cancerous Lesion in Cervical Biopsy in Paropakar Maternity and Women's Hospital

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### ABSTRACT

**Aims:** To determine the detection rate of cervical lesion by cervical Pap test and to see the ongoing trend of Pap testing in the hospital.

**Methods:** The retrospective study was conducted in department of pathology, Paropakar Maternity and Women's Hospital, Thapathali, Kathmandu, Nepal from 2016 to 2018. Pap testing sample received in the department were included in the study. All the data were retrieved from computers and registers at record section and histopathology unit.

**Results:** There were 5.49% (1688 out of 30725) and 6.12% (1779 out of 29062) of gynecology out-patients had Pap test in first and second year respectively. Epithelial cells abnormalities were seen in 6.1% (104) and 4.83% (86) in first and second year respectively. Cervical biopsy sample in first year and second year had precancer and cancerous lesion in 29.55% (94 out of 318) and 22.01% (59 out of 268) in second year.

**Conclusions:** Epithelial abnormalities seen in Pap test could detect quite a good proportion of abnormal cervical lesion in biopsy specimen of cervix.

**Keywords:** cervical biopsy, cervical cancer, cervical intraepithelial neoplasm, cervical screening.

### INTRODUCTION

Cervical cancers have increased from an estimated 378000 in 1980 to 5000000 per year in recent years, reflecting an average annual increase of 0.6%.<sup>1</sup> According to ACOG guidelines cervical screening done for women in every three years, if test is done alone. If women have a Pap test along with HPV test (co-testing) then every 5 years interval. After Papanicolaou (Pap) test was implemented in the United States, cervical cancer mortality rates have declined by 74%.<sup>2</sup> Developing countries do not have ample of resources to implement cytology based prevention programs. Incidence and mortality related to cervical cancer are both declining in developed countries because of effective screening programs of Papanicolaou test.<sup>3</sup> Cervical cancer is the most common cancer in women and about 500 thousand women annually in the developing world lose their lives to this cancer.<sup>4</sup>

Our study was intended to see ongoing trend of Papsmear testing in our hospital with that of cervical biopsy specimen with positive for intraepithelial lesion and cervical cancer within that period.

### METHODS

It was a retrospective descriptive study of Pap tests and cervical biopsy specimens received at Department of Pathology during two years period from 2016-April-13 to 2018-April-13 at Paropakar Maternity and Women's Hospital, Kathmandu. Out of 59787 gynaecology outpatients 3467 Pap test samples received and reported according to Bethesda System.<sup>5</sup> Screened samples with epithelial abnormalities were recorded from the department's files and computers. There were 586 cervical biopsy specimens the samples showing intraepithelial neoplasm and malignancies were recorded.

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## RESULTS

In this study, total no of gynecology cases seen in two years period (2016-April-13 to 2018-April-13) was 59,787. Record was traced from static department and pathology department of the hospital. Total no of Gynecology case seen in Out Patient Department 2016- April-13 to 2017-April- 1 was 30725 where as in 2017-April-13 to 2018-April-13, gynecology case seen in OPD was 29062. Within that period total numbers of Liquid based Pap smear was seen 3250 and conventional Pap smear was seen 217. So altogether Pap smear tests interpreted were 3467, i.e. 5.79% of total gynecology case in the OPD [Figure 1 and 2].

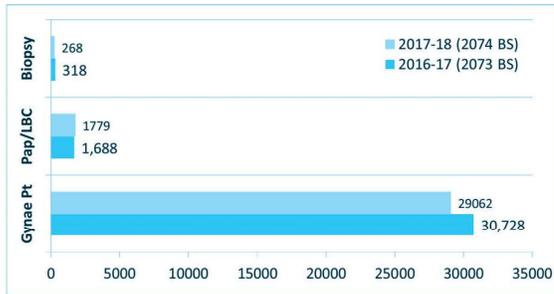


Figure 1: Two years' trend in cervical screening.

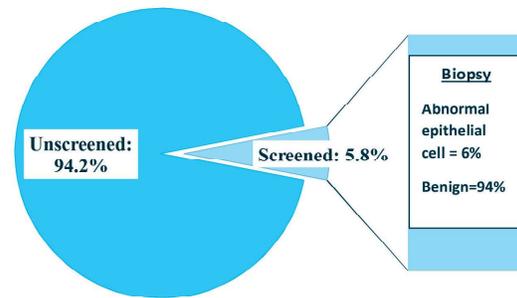


Figure 2: Screening and epithelial cell abnormality (n=3467).

Among these cervical screening testssquamous abnormalities were seen in 203 cases and 7 cases were interpreted as squamous cell carcinoma i.e. 6.01% of all pap screen test showed precancerous and cancerous lesion [Figure-3].

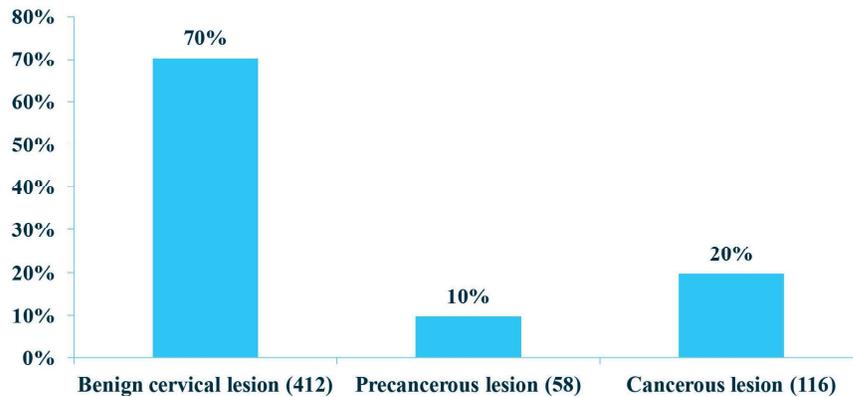


Figure 3: Cervical biopsy lesions (n=586).

The cervical biopsy specimenreceived in histopathology department was 586. Among these biopsy specimen precancerous and cancerous lesion were seen in 174 cervical biopsy tissue i.e. 29.6% of all cervical biopsy specimen showed precancerous lesion and cancerous lesion; 66.6 % showed cancerous lesion among all precancerous and cancerous lesion.

## DISCUSSION

Most cases of cervical cancer (85%) occur in developing countries that have ineffective screening programs.<sup>6</sup> Because of opportunistic screening practice at this hospital, the screen positivity is more than the proportion of screened population. Whereas the study done by Siegel et al showed cervical cancer-related deaths in American women declined by more than 80% from 1930 to 2012, primarily because of widespread use of cytology (Papanicolaou [Pap] test).<sup>7</sup> Today, with proper implementation of the pap smear many cases of cervical cancer can be detected.

The role of Papanicolaou (Pap) smear as a cancer screening tool for cervix has been substantiated by several studies in the last 50 years and the methods has resulted in falling incidence and mortality of cervical cancer in developed world.<sup>8</sup> As the British women screened by 85%, the incidence of cervical cancer has decreased by 75%.<sup>9</sup> In Norway, where only about 5% of women are screened, the incidence of cervical cancer increased during the same time period.<sup>10-12</sup>

We have detected 6% of epithelial abnormalities (including ASCUS, AGUS, ASC-H, LSIL, HSIL and squamous cell carcinoma) among all the women that has been screened but the studies done in India and Pakistan showed little lower in its prevalence rate.<sup>13-15</sup>

In the Practice Bulletins- Gynecology they have mentioned nearly one-half of women with cervical cancer were not screened before diagnosis, and

another 10% were not screened within the previous five years.<sup>16</sup> Pap screening is done to find abnormal cervical cytology-cervical dysplasia & cervical cancers in population. Routine cytological screening would go a long way in the early detection of cervical dysplasia and help in reducing the incidence of cervical cancer. Though, the definite method to diagnose cervical cancer is biopsy.<sup>17-20</sup>

## CONCLUSIONS

In the clinical set up like ours less numbers of women were tested for pap testing, who were visited in the hospital with gynecology problem. But the women who underwent cervical biopsy were detected with more intraepithelial dysplasia and cancer of the cervix. Thus the routine screening would help detecting cancer early over opportunistic screening practices.

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