



STUDY AND ANALYSIS OF CERVICAL PAP SMEARS IN A MEDICAL COLLEGE HOSPITAL

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ABSTRACT

Introduction: Cervical cancer is the second most common gynaecological cancer worldwide and the third leading cause of cancer-related mortality in the less developed countries. Cervical cancer may be prevented or diagnosed at early stages due to the easy accessibility and clinical evaluation of the cervix.

A pap test is a simple, easy, painless procedure which can be carried out as an outpatient procedure to detect specific, nonspecific inflammations, precancerous and cancerous lesions. In our study we have analysed the results of PAP smears of women in all age groups and have tried to evaluate the prevalence of cervical lesions and the importance of cervical cancer screening.

Material And Methods: Our study was conducted between October 2020 to JULY 2021 and patients who have visited the Gynaec OP during this period were included for this study. We received Pap smears from the Department of Obstetrics and Gynecology, stained the slides with Pap stain and studied the smears according to the new Bethesda System for Reporting Cervical Cytology 2014.

Results: In our study, majority of the patients were in the age group of 41-50 years. Smears showing ASCUS were 14, LSIL reports were 5, HSIL reports were 4. No Smears showed squamous cell carcinoma in our study. Reports in our study like many other studies has shown the importance of Pap smear test in screening cervical cancer. By conducting health camps, increasing health awareness and performing Pap smear screening programmes the incidence of cervical carcinoma can be decreased.

KEYWORDS : PAP smear, ASCUS, LSIL, HSIL

INTRODUCTION

Cervical cancer is the second most common gynecological cancer worldwide and the third leading cause of cancer-related mortality in the less developed countries.¹

Cervical cancer mostly affects younger women and during the last two decades the incidence in younger age groups has further increased. Cervical cancer is a preventable disease due to the long preinvasive stage.

Majority of cervical cancer cases and deaths related to it occur among the women who are not adequately screened and treated.²

Cervical cancer may be prevented or diagnosed at early stages due to the easy accessibility and clinical evaluation of the cervix.

Papanicolaou described cervical mass screening for early detection of cervical cancer. The Pap smear has proved valuable for mass screening and enabling lesions detection at an early enough stage for effective treatment and has an incidence of reducing squamous ICC (Invasive cervical carcinoma) by at least 80%. The overall sensitivity of the Pap test in detecting a high-grade squamous intraepithelial lesion (HSIL) is 70 - 80%.⁴

A pap test is a simple, easy, painless procedure which can be carried out as an outpatient procedure to detect specific, nonspecific inflammations, precancerous and cancerous lesions.

Cytological screening guidelines recommend pap tests starting at the age of 21 years. Until 65 years cytology screening should be done every 3 years. HPV testing should be done every 5 years from 30-65 years. For women older than 65 years screening is stopped when the result of 3 consecutive cytology screening is negative. In case of detection of precancerous lesions screening is to be continued for at least 20 years after spontaneous regression or appropriate management.⁵

In case of abnormal Pap smear report, depending on the type of abnormality the test may need to be repeated in six to twelve months. More sensitive and specific investigations like colposcopy guided cervical biopsy etc are needed to diagnose and prevent further progression to cervical cancer.⁶

In our study we have analysed the results of PAP smears of women in all age groups who have visited the Gynaec department in the Medical college hospital and compared our results with some previous PAP smear studies and have tried to evaluate the prevalence of cervical lesions in our region and the importance of cervical cancer screening.

MATERIALS AND METHODS

Our study was conducted between October 2020 to JULY 2021 and patients who have visited the Gynaec op during this period were included for this study.

Women aged 21-80 years old with different complaints, including vaginal discharge, blood mixed discharge, foul-smelling discharge, postcoital bleeding, intermenstrual bleeding, postmenopausal bleeding, abdominal pain, infertility, and secondary amenorrhea, were included in this study. Pregnant females and those with history of cervical cancer treatment were excluded from the study.

Received Pap smears from the Department of Obstetrics and Gynaecology with detailed history in predetermined proforma that included the chief complaint and the findings of per speculum and vaginal examinations. Written informed consent was also obtained from all patients.

Procedure

Pap smears are taken by using Ayres Spatula. The broad end of spatula was placed on the Cervix and rotated through 360° and the collected material was spread over a glass slide.

The oblong relabelled narrow end of spatula was used to take smear from posterior vaginal fornix and spread over a second glass slide.

The Endo cervical sample was collected using a Cyto brush

and was spread over labelled third glass slide.

All the slides were labelled and immediately transferred to 95% Ethyl alcohol (Transport Medium) and sent to Pathology Department for Cytological study.

We stained all the slides with Pap stain and examined according to the new Bethesda System for Reporting Cervical Cytology 2014.

The system broadly divides lesions into those negative for intraepithelial neoplasia and epithelial cell abnormalities (ECA) that include squamous and glandular cells.

Women who had abnormal Pap test results, including atypical squamous cells of undetermined significance (ASCUS), low-grade squamous intraepithelial lesion (LSIL), and HSIL were advised for a colposcopic examination.

Inclusion Criteria

Women between 21 to 80 years of age with sexual history.

Exclusion Criteria

- Women below 21 years.
- Pregnant females
- Women with history of cervical cancer treatment
- Women without sexual exposure

DISCUSSION

In our study we have taken Pap smears from women presenting to Gynaecology OPD of ACS Medical college Hospital between 21 to 80 years presenting with different Gynaecological complaints and as routine beyond the age of 45 years.

Total of 100 pap smears were reviewed out of which 11 cases were unsatisfactory and were excluded from the study Mean age was 47 years.

In our study, majority of the patients were in the age group of 41-50 years.

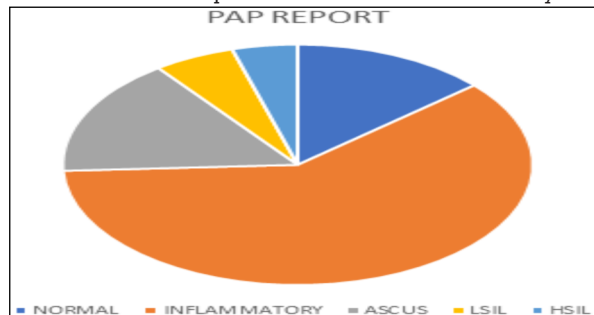
Negative for intraepithelial lesion or malignancy (NILM) with non specific inflammation was reported in 54 cases NILM without inflammation (normal smear) was seen in 12. In our study abnormal Pap smear reports were 21. Inflammatory smear reports were 54 in our study.

Smears showing ASCUS (Atypical squamous cells of undetermined significance) were 14 in our study. Majority of the cases of NILM and inflammatory smears were seen in the age group of 41-50 years.

LSIL (Low grade squamous intraepithelial lesion) reports were 5.

In our study HSIL (High grade squamous intraepithelial lesion) reports were 4.

No Smears showed squamous cell carcinoma in our study.



In our study out of 89 cases most common were inflammatory smears and seen in the age group of 41-50 followed by ASCUS in the age group of 51-60 years (60.7 % and 15.7% respectively). Out of epithelial cell abnormalities most common lesion was LSIL (5.6%) and it was most common in the age group of 51-60 years with mean age of 53.5 years. HSIL was more common in older women with age group of 61-70 years (4.5%).

Distribution Of Women According To Symptoms

Symptoms	No. of Patients	%
Patients with chronic white discharge	28	31.5
Routine Pap	12	13.5
Unhealthy cervix	21	23.6
Post menopause	18	20.2
Pelvic inflammatory disease	7	7.9
Abnormal uterine bleeding	3	3.8

In the present study, most of the abnormal cytology was detected in patients in the age group between 40 and 60 years (14.6%). LSIL and HSIL were found in 5.6% and 4.5% of the women in this age group, respectively. Gupta, et al.⁷ reported that most of the abnormal cytology cases, i.e., 40.37%, in their study were in the age group of 30-39 years, followed by 35.96% in the age group of 20-29 years. LSIL was found in 1.36% (age group of 30-39 years) and HSIL in 0.91% (age group of 40-49 years). Vaghela, et al.⁸ reported that LSIL was the most common epithelial abnormality, found in 12.4% of their individuals, followed by HSIL in 5% of the cases. For all epithelial abnormalities, the average age of the women was 49 years.

Distribution Of Women According To Age

AGE	NUMBER OF PATIENTS	%
21-30	12	13.5
31-40	27	30.3
41-50	26	29.2
51-60	12	13.5
61-70	8	9.0
71-80	4	4.5

Distribution Of Women According To Epithelial Cell Abnormality.

PAP Report	No. of Patients	%
ASCUS	14	15.7
LSIL	5	5.6
HSIL	4	4.5
Inflammatory	54	60.7
Normal	12	13.5

The Pap smear was negative for malignancy in 74.1 % .

Other studies^{9,10} reported 95% and 74.5% had inflammation indicated by the Pap smear test, respectively. A few studies^{11,12} reported that women with persistent inflammation should be appropriately treated; otherwise, the chance of development of cervical intraepithelial lesions increases. A repeat Pap smear should be taken after proper antibiotic treatment.

Reports in our study like many other studies has shown the importance of Pap smear test in screening cervical cancer. By conducting health camps, increasing health awareness and performing Pap smear screening programmes the incidence of cervical carcinoma can be decreased

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