

Observational Study of Two Hundred Cervical PAP Smears in a Tertiary Hospital

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ABSTRACT

Background: Carcinoma of cervix third most common cancer among women worldwide. It is one of the major causes of morbidity and mortality among women worldwide. So the aim of our study was to study and analyse 200 pap smear reports from women presenting in gynaecology OPD with different symptoms.

Methods: In our study we took 200 pap smears from patients coming to gynaecology OPD at T S Misra Medical College for a duration of six month from 01.07.2022 to 01.12. 2022. The age group of these patients was between 21 to 70 years attending gynaecology OPD for different gynaecological complaints and as a routine beyond the age of 21 years using Ayres Spatula. Smears were reported according to Bethesda Classification System.

Results: In our study out of 200 pap smears 154 pap smears showed inflammatory changes .4 smears showed LSIL (Low grade squamous intraepithelial lesion), 2 smears showed HSIL (High grade squamous intraepithelial lesion), 14 smears showed bacterial vaginosis, 14 smears showed candidiasis and 12 smears had ASCUS (Atypical squamous cells of undetermined significance). No smear showed squamous cell carcinoma.

Conclusion: Pap smear is a very easy and affordable screening test to detect premalignant and malignant lesions of cervix which can lead to early diagnosis and treatment of premalignant and malignant lesions of cervix. This can lead to decrease in morbidity and mortality associated with cervical cancer.

Keywords: PAP smear, LSIL (Low grade squamous intra epithelial lesion), HSIL(High grade squamous intra epithelial lesion), ASCUS(Atypical squamous cells of undetermined significance), inflammatory smears, Squamous cell carcinoma

INTRODUCTION

Carcinoma of the cervix is the third most common cancer among women worldwide. However, it is the most common genital cancer among women in India. (Reference 1 Shaw's textbook 17th edition).

The median age at diagnosis is 48 years and the majority of cases are diagnosed between 35 and 55 years¹.

The universal application of pap smears in western communities has led to a drastic decline in the number of invasive cancers of the cervix. If diagnosed and treated early morbidity may be reduced by 70% and Mortality by 80%².

The Papanicolaou test also known as Pap smear is a screening method used to detect pre-cancerous and cancerous lesions of the cervix. Pap smear was invented by Greek doctor Georgia's Papanicolaou. Pap smear should be performed before vaginal examination, because the fingers may remove the desquamated Cervical cells and give a false negative report. The patient is placed in the dorsal position, with the labia parted, and Cusco's self-retaining speculum is introduced without the use of lubricant.

The cervix is exposed, the squamocolumnar junction is scraped with Ayre's spatula by rotating all around. The scraping for evenly spread into a glass slide and immediately Fixed by dipping the slide in the jar containing equal parts of 95% ethyl alcohol and ether. After 30 minutes, the slide is air dried and stained with pap stain and examined under a microscope. The ACOG recommends that women do not initiate cervical cancer screening until they are 21, regardless of the onset of sexual activities. Forewoman 21 to 29 years, the recommendation is screening with cytology every three years. From 30 to 65 years co-testing with conventional cytology and high-risk HPV testing every five years or cytology alone every three years are appropriate alternatives. After the age of 65, it is appropriate to discontinue screening in women with negative screening history or documented by either three negative cytology results in previous 10 years. The aim of study was to study and analyse the Pap smear reports of 200 subjects.

MATERIALS AND METHODS

This study was carried out in the gynaecology OPD at TSM medical College, Lucknow Uttar Pradesh, India from July 2022 to December 2022. Pap smear were taken from women between the ages 21 to 70 years attending gynaecology OPD for different gynaecological complaints and as a routine beyond the age of 21 years by using Ayre's spatula. The Bethesda System was used to report the Pap smear.

Inclusion Criteria

-Woman between 21 to 70 years of age with sexual history.

Exclusion Criteria

- Woman below 21 years.
- Women above 70 years.
- Woman without sexual exposure.
- Women who are pregnant.

Procedure

- Pap smear was taken by Ayre's spatula plus cytobrush.
 - Ayre's spatula was kept on external os of cervix and rotated through 360° and the collected material was spread over a glass slide.
 - The cytobrush was used to collect the endocervical sample collected on second slide.
- Both slides were labelled and immediately transferred to 95% ethyl alcohol in Coplin jar and sent to pathology department for cytological study.

We used Bethesda classification system for evaluation of Pap smears as described below.

- Within normal limits.
- Infection specify organism.
- Reactive/ reparative changes.

Atypical squamous cells of undetermined significance (ASCUS) or atypical glandular cells of undetermined significance (AGCUS).

- Low-grade squamous intraepithelial lesions (LSIL).
- High-grade Squamous intraepithelial lesions (HSIL).

-Invasive carcinoma.

RESULT

In our study we analysed 200 pap smear reports of women presenting with different symptoms in gynaecology OPD of T.S. MISRA MEDICAL COLLEGE, LUCKNOW U.P

The age distribution was between 21-70 years of age. In our study we have taken 200 women among which 58 were between 21 to 31 years , 80 were between 32 to 41 years , 52 were between 42 to 51 years , 6 were between 52 to 61 years and 4 women were between 62 to 70 years(Table 1) .

Among 200 women who underwent pap smear testing, 56 presented with chronic white discharge. 62 women underwent pap smear testing as a part of routine gynaecological examination .10 women had inter menstrual bleeding, 15 had erosions on cervix, 23 had PID , 10 had postmenopausal discharge per vaginum ,3 presented with AUB , 7 were oral contraceptive pill users ,4 were IUCD users and 10 had unhealthy cervix on examination(Table 2) ..

Results of these pap smear reports were analyse and it was observed that 154 (77%) smears showed inflammatory changes, 4 (2%) reports showed LSIL, 2 (1%) had HSIL, 14(7%) smears showed bacterial vaginosis , 14 (7%) showed candidiasis ,8 (4%) smears showed ASCUS (US) and 4 (2%) showed ASCUS (can't rule out HSIL) and there were no smears with squamous cell carcinoma report (Table 3).

In our study patients had the following distribution according to age.

Table 1: Distribution of Patients According to Age

Age in years	Number of patients	Percentage (%)
21-31	58	29 %
32-41	80	40%
42-51	52	26%
52-61	6	3%
62-70	4	2%

Patients are also classified according to the reasons for performing Pap smears

Table 2: Reasons for Performing Pap Smears

Reasons for pap smear	Number of patients	Percentage (%)
Patients with chronic discharge	56	26%
Routine pap smear	62	31%
Intermenstrual bleeding	10	5%
Erosions on cervix	15	7.5%
P.I.D	23	11.5%
Postmenopausal discharge per vaginum	10	5%
AUB	3	1.5%

OC pills users	7	3.5%
IUCD users	4	2%
Unhealthy cervix	10	5%

Table 3: PAP Smear Reports

Pap smear reports	Number of patients	Percentage (%)
Inflammatory	154	77%
LSIL	4	2%
HSIL	2	1%
Bacterial vaginosis	14	7%
Candidiasis	14	7%
ASCUS(US)	8	4%
ASCUS (can't rule out HSIL)	4	2%
Squamous cell carcinoma	0	0%
Total	200	100%

Statistics

statistics were presented as frequencies and percentages

DISCUSSION

In our study we studied 200 pap smear reports of women coming in gynaecology OPD of T S Misra Medical College, Lucknow, Uttar Pradesh. These women were between the age group of 21 to 70 years. In a study conducted by P. Vijay Lakshmi et al² 200 pap smears were analysed. In a study conducted by Sunita et al⁸ 560 pap smear reports were analysed.

In our study maximum number of women were between 32 to 41 years (40%). In a study conducted by P . Vijay Lakshmi et al ² maximum number of women were between 45 to 55 years age group (34%).

The commonest presenting complaint was vaginal discharge (28%) in our study, In a study conducted by Ekta Rani et al ⁹ also the most common presenting symptom was vaginal discharge.

In our study, maximum reports showed inflammatory picture (77%). In study conducted by P. Vijay Lakshmi et al² also. maximum smears showed inflammatory changes (67%). In a study conducted by Mandakini et al¹⁰ inflammatory pap smear reports were 57.5%.

In our study ASCUS (Atypical Squamous cells of undetermined significance) were 12(6%). In study conducted by Sunita et al⁸ 13(2.3%) reports showed ASCUS where as in a study conducted by Mandakini et al¹⁰ reports showing ASCUS were 41 (4.1%).

In our study smears showing LSIL (Low grade squamous intra epithelial lesion) were 4(2%) which was very close to LSIL reports in study conducted by Sunita et al⁸ 11(1.9%).

In our study HSIL (High grade squamous intra epithelial lesions) were 2(1%) where as in study conducted by Sunita et al⁸ 2(0.3%) reports showed HSIL. In study conducted by Mandakini et al¹⁰ there was only 1(0.1%) HSIL report.

In our study there was no report (0 %) showing Squamous cell carcinoma. In study conducted by Sunita et al⁸ 3(0.5%) reports were positive for Squamous cell carcinoma. In study conducted by P. Vijay Lakshmi², squamous cell carcinoma was present in 2(1%) reports.

So, the pap smear results in our study like many other studies cited has shown the importance of pap smear testing in screening. prevention and early diagnosis of cervical cancer.

CONCLUSION

Pap smear testing is an inexpensive and simple OPD procedure to detect potentially precancerous and cancerous lesions of cervix. So early detection of these lesions can lead to prompt treatment at an early stage and prolongation of life expectancy of many women.

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