



**ORIGINAL RESEARCH PAPER**

**Gynecology**

**A CYTOLOGICAL STUDY ON REPRODUCTIVE HEALTH OF WOMEN AGED 30-59 YEARS IN A RURAL MEDICAL COLLEGE**

**KEY WORDS:** Pap smear, HSIL – High grade intra epithelial lesion, LSIL – Low grade intraepithelial lesion, ASCUS – Atypical squamous cells of undetermined significance, Squamous cells carcinoma, Malignant smears.

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**ABSTRACT**

**Introduction:** Cervical cancer is one of the major cause of mortality among women worldwide. So the present research aimed to study and analyze 300 pap smear reports from women presenting with various Gynaecological indications.

**Material and Methods:** Study is carried out by taking 300 Papsmears from patients attending Gynaecology OPD at Malda Medical College, Malda for a period of 10 months. Pap smears were taken from patients between ages 30-59 years presenting with different Gynaecological complaints.

**Results:** Among the 300 Pap smear reports analyzed, 196(65.33%) reports showed inflammatory smears. 16(5.33%) smears were shown as Low grade squamous intraepithelial lesion (LSIL). 6(2%) smears Mild to moderate dysplasia was demonstrated. High grade squamous intraepithelial lesion (HSIL) was seen in 14(4.66%) smears. Normal smear is seen in 56(18.66%) smears. Bacterial vaginosis was seen in 6(2%) smears. Atypical squamous cells of undetermined significance (ASCUS) was seen in 2(0.6%) smears. Squamous cell carcinoma was diagnosed in 4(1.3%) smears

**Conclusion:** Pap smear is easy and economical screening method to detect premalignant and malignant lesions of cervix .

**INTRODUCTION:-**

One out of every five women in the world suffering from Cancer cervix belongs to India<sup>(1)</sup>. It is the commonest cancer in India<sup>(1)</sup>. More than one-fourths of these patients are diagnosed at advanced stages. In our country where the risk factors of cancer cervix is prevailing, like – early marriage, early conception, multiparity, low socio economic condition, cervical cancer can be prevented by screening women systematically. Pap smear cytology is the internationally accepted screening method for cervical cancer. Recommendations of the United States Preventive Services Task Force is to screen

- All women who are sexually active
- Screening should begin at 21 years or 3 years within starting sexual activity, whichever is earlier
- Screening is recommended every 3 years
- Screening is not recommended in women more than 65 years, provided they have been regularly screened before and are not at a high risk for cervical cancer

In India under the National Cancer Control Program the proposed strategy plans to cover women in the age group of 30-59<sup>(1)</sup> years using primarily the alternative screening tests.

The Papanicolaou test also known as Pap test, Pap smear, cervical smear or smear test is a screening method used to detect potentially precancerous and cancerous processes in the cervix. Greek doctor Georgios Papanikolaou invented this test and it was named after him.<sup>2</sup>

Pap smear test is performed by opening the vaginal canal with cuscus speculum and collecting cells at the outer opening of the cervix i.e. at the transformation zone, from posterior vaginal wall and endocervical canal. Then the collected cells are examined under a microscope. The test mainly meant to detect precancerous conditions like cervical intraepithelial neoplasia (CIN) or cervical dysplasia, squamous intraepithelial lesion system (SIL) etc. Pap smear test is an effective, cost effective and widely used method for early detection of pre- cancer and cervical cancer.

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.

Based on above parameter a study was done to see the cytological parameter On Reproductive Health of Women Aged 30-59 Years with the following objectives.

**OBJECTIVE:**

- To identify cytological abnormalities of cervix in the study population.

**METHODOLOGY:**

- TYPE OF STUDY: = Observational, descriptive, cross-sectional.
- STUDY AREA- Malda Medical College, Malda
- STUDY POPULATION- - Women in the age group 30-59 years.
- STUDY PERIOD - 10 month
- SAMPLE SIZE -300

**Exclusion criteria**

- Unmarried
- Pregnant
- Puerperal (6wks following delivery), following abortion
- Already detected cancer cervix.
- Women refusing consent.

STUDY TOOLS = pre-designed, pre-tested Proforma, sterilizer, cuscus speculum.

STUDY TECHNIQUES = Institutional ethical clearance is taken at first After that,

- Interview.
- Clinical examination
- Laboratory examination

**PLAN OF STUDY**

Women will undergo gynecological checkup, cervical smears from the squamo-columnar junction using an Ayresspatula, Smears will be fixed in ethyl alcohol. Smears to be given to pathologists of Medical college for staining by papanicolaou technique and reporting.

**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 relabeled 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.

Evaluation was done by Cytology

- Inflammatory smear
- Low grade squamous intraepithelial lesion (LSIL)
- Mild to moderate dysplasia
- High grade squamous intraepithelial lesion (HSIL)
- No evidence of malignancy or normal
- Bacterial vaginosis
- Atypical squamous cells of undetermined significance (ASCUS)
- Squamous cell carcinoma

**STATISTICAL ANALYSIS**

Data was analyzed by epi info and descriptive statistics were presented as frequencies and percentages.

**RESULTS**

In our study we analyzed 300 Pap smears taken from women presenting to Gynecology OPD of Malda Medical College between 30 to 59 years presenting with different Gynecological complaints and as routine beyond the age of 45 years.

In our study we have taken 300 women, in them 96(32%) were between 30-39 years, 146(48.33%) women were between 40-49years and 58 (19.33%) women were between 50-59 years, (table-1).

Among the 300 women undergoing Pap smear tests, 122(40.66%) women presented with chronic white discharge. 96(32%) women underwent Pap smear test as part of routine gynecological examination. 77(25.66%) women presented with pelvic inflammatory disease. unhealthy cervix. 24(8%) women underwent pap smear examination as an indication of Post hysterectomy chronic white discharge and 47(15.66%) women had abnormal uterine bleeding. (Table-2)

Among the 300 Pap smear reports analyzed, 196(65.33%) reports showed inflammatory smears. 16(5.33%) smears were shown as Low grade squamous intraepithelial lesion (LSIL). 6(2%) smears Mild to moderate dysplasia was demonstrated. High grade squamous intraepithelial lesion (HSIL) was seen in 14(4.66%) smears. Normal smear is seen in 56(18.66%) smears. Bacterial vaginosis was seen in 6(2%) smears. Atypical squamous cells of undetermined significance (ASCUS) was seen in 2(0.6%) smears. Squamous cell carcinoma was diagnosed in 4(1.3%) smears (table-3).

**DISCUSSION**

It is accepted worldwide that early detection of precancerous lesions of cervix can be done by cytological examination of cervix by Pap smears. It is proven that the cytological screening programs conducted in advanced countries played a major role in reducing mortality and morbidity due to Cancer Cervix. In our study we have taken 300 Pap smears taken from women presenting to Gynecology OPD of Malda Medical College, Malda between 30 to 59 years presenting with different Gynaecological complaints and as routine beyond the age of 45 years.

In our study maximum number of women 146(48.33%) women were between 40-49years. In study conducted by Sunita et al<sup>8</sup> maximum number of women were between 31 to 40 years age group (32.68%). In study conducted by Mandakini et al<sup>9</sup> between 15 to 30 years maximum number of women were studied. In study conducted by Vijaya Laxmi et al<sup>10</sup> maximum number of women were between 45 to 55 years age group (34%). In study conducted by Vijaya Laxmi et al<sup>10</sup> Inflammatory smear reports were 134(67%), in our study it was 196(65.33%), whereas in study conducted by Sunita et al<sup>8</sup> 403(71.96%) reports were inflammatory and in study conducted by Mandakini et al<sup>9</sup> inflammatory Pap smear reports were 572(57.5%).

Smears showing ASCUS (Atypical squamous cells of undetermined significance) were 5(2.5%) in Vijaya Laxmi et al<sup>10</sup> study where as in our study it was in 2(0.6%) smear. In study conducted by Sunita et

al<sup>8</sup> 13(2.3%) reports showed ASCUS and in study conducted by Mandakini et al<sup>9</sup> reports showing ASCUS were 41(4.1%).

Smears showing LSIL (Low grade squamous intraepithelial lesion) were 15(7.5%) in Vijaya Laxmi et al<sup>10</sup> study where as in our study it was in 16(5.33%) smear. In study conducted by Sunita et al<sup>8</sup> 11(1.9%) reports gave LSIL and in study conducted by Mandakini et al<sup>9</sup> reports showing LSIL were 41(0.1%).

In Vijaya Laxmi et al<sup>10</sup> study HSIL (High grade squamous intraepithelial lesion) reports were 12(6%), whereas in our study it was 14(4.66%), study conducted by Sunita et al<sup>8</sup> 2(0.3%) reports gave HSIL. In study conducted by Mandakini et al<sup>9</sup> HSIL reports were 1(0.1%).

Smears showing squamous cell carcinoma were 2(1%) in Vijaya Laxmi et al<sup>10</sup> study where as in our study it was in 4(1.3%) smear. In study conducted by Sunita et al<sup>8</sup> 3(0.5%) reports gave squamous cell carcinoma and in study conducted by Mandakini et al<sup>9</sup> reports showing squamous cell carcinoma were 7(0.7%).

**CONCLUSION:**

Reports in our study like many other studies has shown the importance of Pap smear test in screening cervical cancer. By conducting health awareness camps, increasing health camps and performing Pap smear screening programmes the incidence of cervical carcinoma can be decreased. 11,12

**Table-1: Distribution of patients according to age**

Age in years	No of patients	Percentage
30-39	96	32
40-49	146	48.66
50-59	58	19.33
Total	300	100

**RESULTS**

**Table-2: Distribution of patients according to reason for performing pap smear**

Reasons for performing Pap smears	No of patients	Percentage
Patients with chronic white discharge	122	40.66
Routine Pap smear	96	32
Pelvic inflammatory disease	77	25.66
Post hysterectomy chronic white discharge	24	8
Abnormal uterine bleeding	47	15.66

**Table-3: Distribution of patients according to Pap smear analysis reports**

Pap smear analysis reports	No of patients	Percentage
Inflammatory smear	196	65.33
Low grade squamous intraepithelial lesion (LSIL)	16	5.33
Mild to moderate dysplasia	6	2
High grade squamous intraepithelial lesion (HSIL)	14	4.66
No evidence of malignancy or normal	56	18.66
Bacterial vaginosis	6	2
Atypical squamous cells of undetermined significance (ASCUS)	2	0.6
Squamous cell carcinoma	4	1.3
Total	300	100%

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