



# Retrospective Study of out Come of Pap Smear

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ABSTRACT

Cervical cancer is the second most common cancer among women globally. Globally, 15% of all cancers in females are cervical cancers, while in Southeast Asia, cancer cervix accounts for 20%-30% of all cancers. More than 85% cases and 88% deaths from cervical cancer occur in developing countries, where women often lack access to cervical cancer screening and treatment. India alone accounts for one-fourth of the global cervical cancer burden. The Papanicolaou test (abbreviated as Pap test, known earlier as Pap smear, cervical smear, or smear test) is a method of cervical screening used to detect potentially pre-cancerous and cancerous processes in the cervix. Pap described the fern test & the cyclical changes in the cervical mucus under the influence of various hormone. The test was invented by and named for the prominent Greek doctor Georgios Papanikolaou.<sup>1</sup>

**Aim and Objective of the Study**

To study the profile of Pap smears done in gynecology dept during the year of June 2014 to June 2015 in Pariyaram Medical College.

**STUDY POPULATION:** Females attending gynaecology opd who were sent to pathology dept. for pap smear. (willing women > 21 years/ with cervical symptoms.)

**SAMPLE SIZE:** a total of 1548 pap smears were taken in OBG dept in 2015, out of which 348 were inadequate or scanty smears. So the total number of pap smear reports taken for the study was 1200. Results of a Pap Smear: There are two possible results from a Pap smear: normal or abnormal. If your results are normal, probably won't need a Pap smear for another three years. If the test results are abnormal, this doesn't mean patient have cancer. It simply means that there are abnormal cells on cervix, some of which could be precancerous. If positive go with colposcopy, cervical biopsy or fractional curettage.

**Discussion**

In the Surat study<sup>5</sup>, Amongst the 995 cervico-vaginal smears studied, 572 (57.4%) showed inflammatory lesion, 22 (2.2%) showed atrophy. Ratio of inflammation and other lesions to premalignant and malignant ones was 940: 55 [94.5% and 5.5%]. These results were almost similar to our study where, 669 (55.75%) showed inflammatory lesion, 135 (11.25%) showed atrophy. Ratio of inflammation and other lesions to premalignant and malignant ones was 1183: 17 [98.58% and 1.42%].

KEYWORDS

INTRODUCTION

The Papanicolaou test (abbreviated as Pap test, known earlier as Pap smear, cervical smear, or smear test) is a method of cervical screening used to detect potentially pre-cancerous and cancerous processes in the cervix.

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**WHAT IS PAP SMEAR TEST??**

Is obtaining sample of exfoliated cell (dead cells that are shed) from cervical layer.

The specimen should be obtained 2 weeks after the first day of LMP taken by Ayer's spatula.

PURPOSE

To detect early cancer of the cervix and human papilloma virus infection.

To determine estrogen activity related to menopause or endocrine abnormalities.<sup>1</sup>

**WHEN TO DO PAP SMEAR?**

Approximately 3 years after onset of sexual intercourse, but no later than 21 years old.

After initial test, have annually, every 2-3 years for woman > 30 and have had 3 consecutive normal Pap results may be screened after 2-3 years.

World Health Organization (1992) recommended screening every woman once in her lifetime at 40 years.

Discontinue it for benign reasons & no prior h/o high grade CIN.<sup>2</sup>

Vaginal speculum<sup>8</sup>Ayer's spatula<sup>8</sup>**PREPARATION BEFORE**

We should advise patient to make an appointment other than during menstruation.

**Before apointment :**

1. Avoid intercourse for 2 days
2. Refrain from douching for 1 day
3. Cease the use of vaginal medication for at least 48 hours

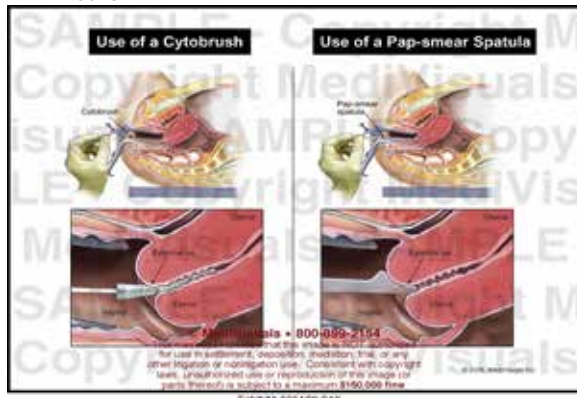
**PRE-PROCEDURE**

1. Inform and explain the procedure to patient
2. Advise patient to void.
3. Provide privacy.
4. Assistant position Lithotomy to her on examining table
5. Drape patient permit minimal exposure.

Avoid vaginal examination prior to procedure because fingers may remove the desquamated cervical cells and give false negative report<sup>4</sup>

**DURING PROCEDURE**

1. Explaining the procedure as needed.
2. Encourage patient to take deep breaths- help the pelvic muscles relax.
3. The longer projection of the Ayre's spatula was placed in the cervix near squamo-columnar junction and rotated through 360°.
4. The cellular material thus obtained was quickly, but gently smeared on a clean glass slide & immediately put into the jar containing 95% ethyl alcohol which acted as a fixative.<sup>8</sup>

**POST-PROCEDURE**

1. Observed any discharge from the vagina.

2. Perineal care as needed.
3. Assist patient from the dorsal recumbent position to supine position.
4. Documentation.

Sent the specimen to Laboratory with the form

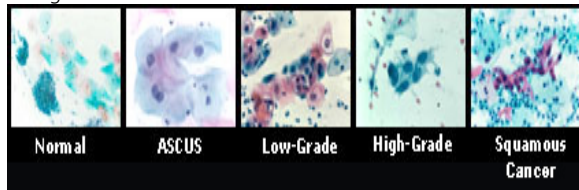
**Results of a Pap Smear**

There are two possible results from a Pap smear: normal or abnormal.

If your results are normal, probably won't need a Pap smear for another three years.

If the test results are abnormal, this doesn't mean patient have cancer. It simply means that there are abnormal cells on cervix, some of which could be precancerous.

If positive go with colposcopy, cervical biopsy or fractional curettage



Normal: negative means there is no identifiable infection.

ASCUS :presence of a high-risk infection with HPV.

Low-Grade changes:Slightly abnormal,suggestive of inflammatory changes,repeat smear after treating infection.

High-Grade changes:Distinctly abnormal, possible malignancy,usually indicative of the need for biopsy.

Squamous cell carcinoma or adenocarcinoma: cancer is evident and requires immediate attention.<sup>1</sup>

**Aim and Objective of the Study**

To study the profile of Pap smears done in gynecology dept during the year June 2014 to June 2015

**METHODOLOGY**

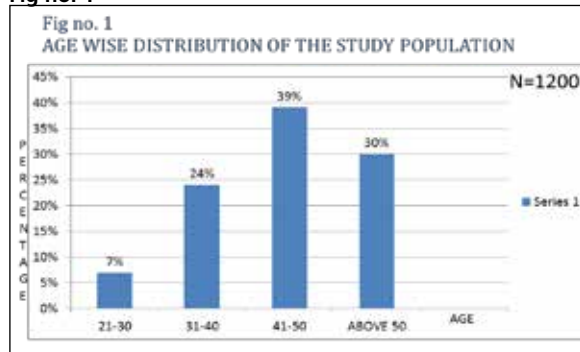
- STUDY DESIGN: Record based descriptive study.
- STUDY SETTING: Department of pathology, Acme, pariyaram
- STUDY PERIOD: (1 year) 01/06/2014 to 30/06/2015

**STUDY POPULATION:**

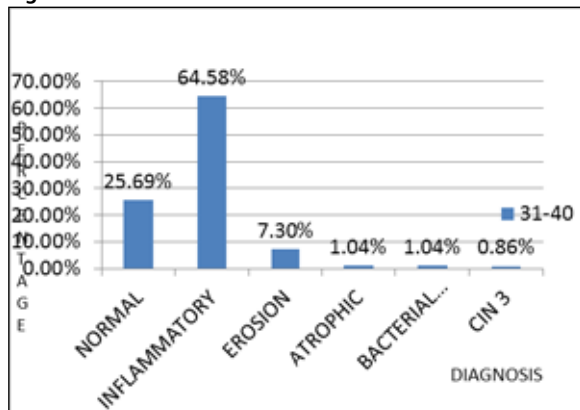
Females attending gynaecology opd who were sent to pathology dept. for pap smear.(willing women>21years/ with cervical symptoms.)

**INCLUSION CRITERIA:**

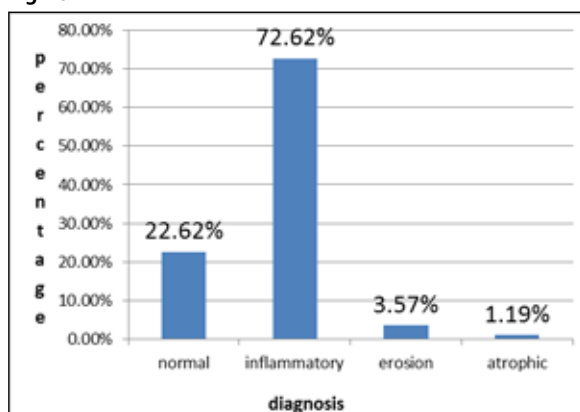
reports of all pap smear tests done during the year 2015.

**EXCLUSION CRITERIA:** Inadequate/scanty smear**Fig no. 1****AGE WISE DISTRIBUTION OF THE STUDY POPULATION**

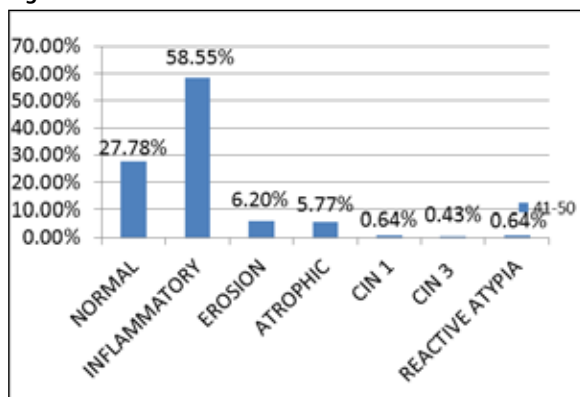
**PAP SMEAR REPORTS OF WOMAN AGED 31 – 40 (N=288)**  
Fig no:3



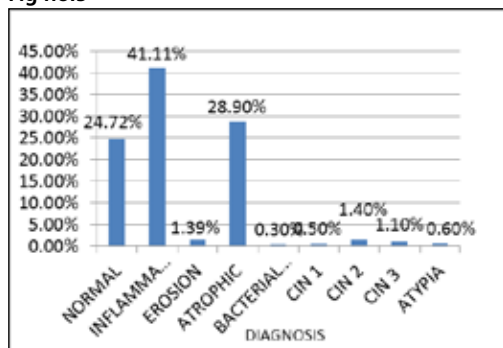
**PAPSMEARREPORTSOFWOMENAGED21-30YEARS(N=84)**  
Fig no:2



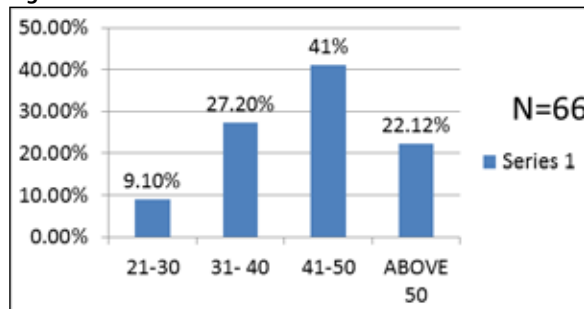
**PAP SMEAR REPORTS OF WOMAN AGED 41- 50 (N=468)**  
Fig no:4



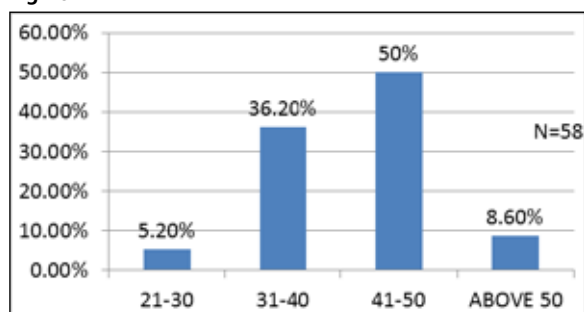
**PAP SMEAR REPORT OF WOMEN AGED ABOVE 50 (N=360)**  
Fig no:5



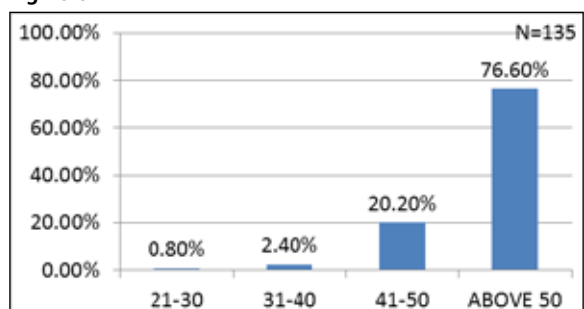
**AGE WISE DISTRIBUTION OF INFLAMMATORY SMEAR**  
Fig no:6



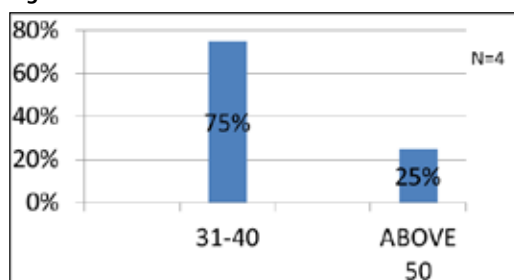
**AGE WISE DISTRIBUTION OF EROSION CERVIX**  
Fig no:7



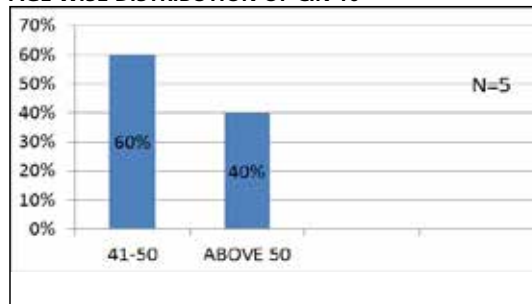
**AGE WISE DISTRIBUTION OF ATROPHIC SMEAR**  
Fig no:8



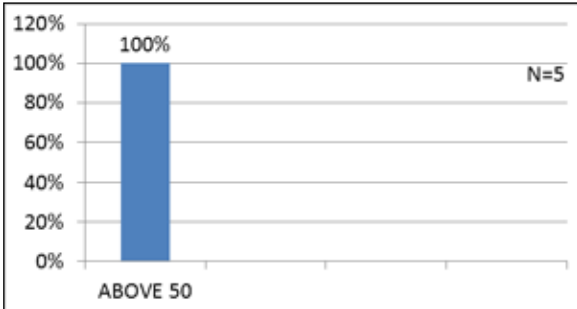
**AGE WISE DISTRIBUTION OF BACTERIAL VAGINOSIS**  
Fig no:9



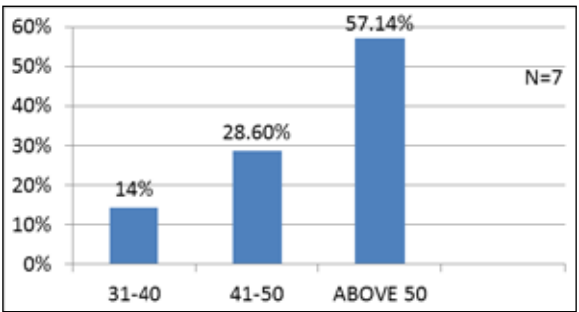
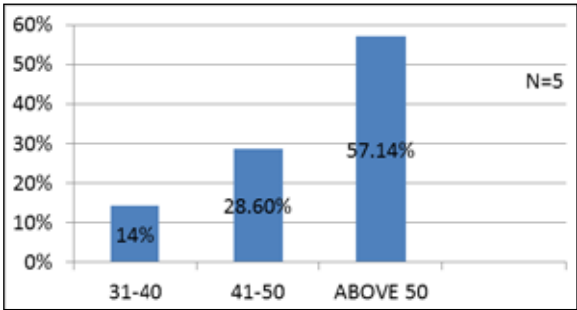
**AGE WISE DISTRIBUTION OF CIN 10**



AGE WISE DISTRIBUTION OF CIN 2  
Fig no:11



AGE WISE DISTRIBUTION OF CIN 3  
Fig no:12



AGE WISE DISTRIBUTION OF ATYPIA  
Fig no:13

ASSOCIATION BETWEEN AGE AND DIAGNOSIS  
Table:3

	NORMAL n=312	INFLAMMATOR n=669	EROSION n=58	ATROPHIC n=124	BACTERIAL n=4	CIN1 n=5	CIN2 n=5	CIN 3 n=7	ATYPIA n=5
21-30	6.1%	9.12%	5.17%	0.74%	0	0	0	0	0
31-40	23.72%	27.8%	36.2%	2.22%	75%	0	0	14.3%	0
41-50	41.67%	40.96%	50%	20%	0	60%	0	28.6%	60%
>50	28.53%	22.12%	8.62%	77.04%	25%	40%	100%	57.14%	40%

Discussion

- In the Surat study<sup>5</sup>, Amongst the 995 cervico-vaginal smears studied ,
- 572 (57.4%) showed inflammatory lesion,22(2.2%) showed atrophy,
- Ratio of inflammation and other lesions to premalignant and malignant ones was 940: 55 [94.5% and 5.5%].
- These results were almost similar to our study where,
- 669(55.75%) showed inflammatory lesion,135(11.25%) showed atrophy.
- Ratio of inflammation and other lesions to premalignant and malignant ones was 1183:17 [98.58% and 1.42%].
- In the Patiala study <sup>7</sup>, 3% cases were positive for malignancy.
- Out of the 273 smears negative for any intra epithelial lesion or malignancy, 50 (16.7%) showed normal cytological findings and 223 (74.3%) were inflammatory.
- In contrast to our study 1.42% cases were positive for malignancy,.

Out of the 1183 smears negative for any intra epithelial lesion or malignancy, 312 (26.4%) showed normal cytological findings and 669 (56.5%) were inflamm

Recommendation

Give proper motivation for all women aged >21 rather than only those with cervical symptoms,to do routine pap smear.

It would be better if Histopathology register mentions cervical

symptom of the patient as well.

Training of medical personnel to take an adequate smear, in order to avoid missing of any diagnosis and also since the patient is unlikely to visit again for a repeat smear

PAP smear examination should begin at 21 years.It may be followed with HPV-DNA testing at higher centres.

Reference

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