

# Pap Smear Study of Cervical Cytology



## Pathology

**KEYWORDS :** Pap smear, cervical cytology

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### ABSTRACT

*Aims & Objectives:*

To study the inflammatory lesion of cervix, to detect cervical cancer and its precancerous lesion at an early stage by pap smear examination, to find out the incidence of various cervical lesions.

*Materials and Methods:*

The female patients above the age of 20 years attending the gynecology opd with complaints such as bleeding per vaginum, leucorrhoea, something coming out per vaginum etc. Were selected for the study.

After taking patients consent the cervical scrap smear was collected by using a sterile ayre's spatula.

The material obtained on the spatula was immediately smeared on prelabelled glass slide to form a monolayer thick smear. Immediately the slides were fixed in fixative before drying.

The slides were allowed to dry and staining were done by rapid pap method.

*Observation:*

Study was done in 200 patients. out of 200 cases examined by pap smear, 9.5% inadequate, 22% normal, 4% atrophic changes, 47% inflammatory lesion, 6.5% ASCUS, 3.5% LSIL, 7% HSIL, 0.5% AGUS found.

*Conclusion:*

From pap smear screening method awareness increased in patients. There is long latent period in cervical cancer and found most common in 30-39 age groups. So by screening method it can be detected in precancerous stage at an early age and its progression prevented

**Introduction:** Carcinoma of uterine cervix is the second most common cancer among women worldwide. It is most prevalent form of cancer in developing country especially in south east Asia region and incidence is much higher than developed ones. The preclinical stage of cancer of cervix lasts for several years and so can be detected at an early stage. The pap test is the simple safe, reliable and noninvasive method for diagnosing of diseases of cervix.

**Aims & objectives:** To study the inflammatory Lesion of cervix. To detect cervical cancer & its precancerous lesion at an early stage by pap smear Examination. To find out the incidence of various cervical lesion

**Material & Methods :** The 200 Patient above the age of 20 years with complains such as bleeding per vaginum, leucorrhoea, something coming out per vaginum etc.. were selected for the study. With sterile ayre's spatula cervical scrap smear was taken. Material smeared on a prelabelled glass slide to form monolayer thick smear. Immediately the slides were fixed with methanol. After drying, the slides were stained by rapid pap method

**Observation:** According to age group following results are Found in total 200 case taken. Table no.1

Age Group	Inadequate	Normal	Atrophic Changes	Inflam-mation	AS-CUS	LSIL	HSIL	AGUS
20-29	9	17	-	28	4	-	2	-
30-39	6	17	1	39	7	4	7	1
40-49	2	6	5	22	1	3	5	-
50-59	2	4	2	5	1	-	-	-
Total	19	44	8	94	13	7	14	1
Per-centage	9.5 %	22 %	4 %	47 %	6.5 %	3.5 %	7 %	0.5 %

❖ Inflammatory lesion are most common lesion 47% in 30-39 age groups.

- ❖ 22% patients found normal , 9.5% had inadequate and 4% show atrophic changes.
- ❖ 6.5% are ASCUS, 0.5% show AGUS. HSIL are 7% and LSIL 3.5% most common in 30-39 age groups. In both of them HSIL more Common than LSIL.

**Table no. 2 locality wise distribution of patients**

Locality	No of Patients	Percentage
Urban	36	18 (%)
Urban Slum	108	54 (%)
Rural	56	28 (%)
Total	200	100)

**Table no.3 Distribution of Ethnic Groups**

Locality	No of Patients	Percentage
Hindu	184	92 (%)
Muslim	16	8 (%)
Total	200	100 (%)

### Discussion

The observation from present study was compared with finding obtained by other workers .

### Classification of cervical cytology smear

Name of Worker	Present Study (2012)	Chauhn et al (1990) <sup>42</sup>	Noor Af-shan et al(1995) <sup>45</sup>	Misra et al (1997) <sup>14</sup>	Sepehrn tabrizi et al (1999) <sup>4</sup>	Karuma et al(2003) <sup>46</sup>
No. cases	200	5778	400	1634	460	100
Normal atrophic change (%)	26	10.12	17.5	37.7	54.16	31
Inflam-matory lesion(%)	47	69.19	57	57.4	23.30	48
SIL(%)	10.5	2.28	20	4.8	12.58	12

The incidence of lesions observed during present study correlated with the finding by Noor afshan et al and karuma et al .

In present study :

Inflammatory lesion - 47 %

SIL - 10.5 %

*Noor Afshan study*

*Inflammatory lesion* - 57%

*SIL* - 20 %

*Karuma study*

*Inflammatory lesion* -48 %

*SIL* - 12 %

**Table no.4 Comparison of peak incidence of SIL:**

Name of Worker	Present study 2012	Chauhn Et-Al- (1990)	Misra et al (1997)
Age (Years)	30-39	30-39	40-49
SIL( %)	52.38	50	33.3

**Table no.5 Comparison Study of Squamous cell abnormalities**

Name of Worker	Present study 2012	Thomas et at (2002)	Karuma et at (2003)
No of cases	200	85	100
ASCUS (%)	6.5	15.3	6
LSIL (%)	3.5	14.12	7
HSIL (%)	7	5.88	5

**Summary & Conclusion**

High incidence of squamous cell abnormalities found in Hindu women coming from urban slum area & having lower social economic condition. incidence of cervical lesion is found to be directly related to early marriage, duration of married life & with multiparty .

**REFERENCE**

1.K.Park : Park's text book of preventive and social medicine, 18th Ed. M/s. Banaridas bhanton publishers, 1167, Premmanagar 307 308, 2005. | 2.Giannoe R, Piacerzi c: pap smear today. Minerva gieneco 46 (12):687, 1994. | 3.victor P. Eroschenko: di Fiore' Atlas of histology with | Functional correlation. 8th Ed. A Wolters kulven company philadelphia. | 4.Karuna, gaspanal v, Van Dan Brule R : the clinical profile and cervical cytomorphology, Indian journal of pathol. Microbiol .46 (2) 78, 2003.S.H. Chauhan, O.K. Tayal, I.J. Kalia:Detection of uterine cervical dysplasia and carcinoma of cervix by cervical cytology. Journal of Obs. & gynec. Of india 17:419, 1990 | 5. Noor afshan , sabposh R. Sherwani, K. Tewari. Tamkin khan and A. Gupta: cytomorphological and Histo pathological assesment of premalignant and malignant lesions of cervix. Journal of Obs.& gynecol of India. 45(4):553,1995 | 6. Misra J.S. Das K. And Harish A: cytological studies in women complaining of leucorrhoea Journal of cytology 14 (1): 11, 1997. | 7.Sepehr N. Tabrizi, Tappan R. Fleses D: the infectivity of HPV and intracervical | Intraepithelial lesions , BrJr. Of Obs and Gynecol.42(3):167, 1999. | 8.Thomas A. Corrara,Majoria M.A. Kumar K.R. The bethesda system recommendation In reporting lining endometrial cells in cervical smears from postmenopausal women Published by American Cancer Society. Indian Jr. Of Pathol microbiol, 25(1):134,2002 |