

# International Journal of Clinical Obstetrics and Gynaecology

ISSN (P): 2522-6614  
ISSN (E): 2522-6622  
© Gynaecology Journal  
www.gynaecologyjournal.com  
2019; 3(2): 135-137  
Received: 07-01-2019  
Accepted: 08-02-2019

## Dr. Rema V Nair

Professor Department of Obstetrics  
& Gynaecology Sree Mookambika  
Institute of Medical Sciences,  
Kulasekharam, Tamil Nadu, India

## Dr. Seetha PM

Professor & HOD Department of  
Obstetrics & Gynaecology Sree  
Mookambika Institute of Medical  
Sciences, Kulasekharam, Tamil  
Nadu, India

## Dr. Sowbharnika CP

Junior Resident Department of  
Obstetrics & Gynaecology Sree  
Mookambika Institute of Medical  
Sciences, Kulasekharam, Tamil  
Nadu, India

## Correspondence

### Dr. Rema V Nair

Professor Department of Obstetrics  
& Gynaecology Sree Mookambika  
Institute of Medical Sciences,  
Kulasekharam, Tamil Nadu, India

## A study on cervical Pap smears among women with leucorrhoea in a tertiary care centre

Dr. Rema V Nair, Dr. Seetha PM and Dr. Sowbharnika CP

DOI: <https://doi.org/10.33545/gynae.2019.v3.i2c.23>

### Abstract

**Introduction:** The study highlights and ascertains the utility of cytology in picking up early cervical cancer in patients with leucorrhoea.

**Aims and objectives:** To evaluate the pattern of cervical smear cytology at a tertiary care centre

**Materials and Methods:** Cytopathological changes observed in the cervical squames were graded according to the Bethesda system for reporting cervical cytology.

**Results:** The cytological patterns were found to be 1) Normal-4 (2.6%) 2) Inflammatory-135(90%) 3) LSIL-4(2.6%) 4) HSIL-1(0.6%) 5) ASCUS-6(4%).

**Discussion;** Cytological evaluation revealed as expected, maximum number of inflammatory smears (90%) and cervical squamous intraepithelial lesion was found in 5 cases.

**Conclusion:** As it is known that the cervical squamous intraepithelial lesions (SIL) have long course to turn into the invasive stage, its detection early by "Pap Smear" reduces the mortality and morbidity with cervical cancer.

**Keywords:** Leucorrhoea, squamous intraepithelial lesions (SIL), cervical cytology, Bethesda system

### Introduction

Leucorrhoea is the clinical evidence of genital infection. Poor genital hygiene in Indian women has been responsible for high prevalence of excessive vaginal discharge [1]. Cervical carcinoma which may present as leucorrhoea which is a leading cause of morbidity and mortality among women worldwide [2]. It is the second most common cancer among women [3]. It is presented by spectrum of precancerous lesions called cervical intraepithelial neoplasia (CIN) [4].

The most common cause of cervical cancer is the Human Papilloma Virus (HPV). Human papillomavirus (HPV) serotypes 16 and 18 have been established as the most frequent etiologies implicated in the development of cervical cancer [5]. Risk factors of this cancer are onset of coitus in young ages, history of sexually transmitted disease, larger number of sexual partners, use of contraceptive methods, history of smoking, parity and chronic immunosuppression [6].

Cancer of cervix is readily preventable, by early detection and appropriate timely treatment of its precursor lesions by simple Pap screening test. The Bethesda system of terminology has been introduced to sub-classify the lesions into grades: high grade and low grade Squamous Intraepithelial Lesions (SIL) for Pap smear reporting. The Bethesda System (TBS) for reporting the results of cervical cytology was developed as a uniform system of terminology that could provide clear guidance for clinical management. Though Pap smear is a routine screening test, the overall sensitivity in detection of high grade squamous intraepithelial lesion (HSIL) is 70 - 80% [7]. Vaginal intraepithelial neoplasia (VaIN) is a human papillomavirus (HPV)-related premalignant condition, histologically diagnosed, characterized by dysplastic change in the vaginal epithelium, without stromal invasion [8]. It accounts for only 0.4% of female lower genital tract intraepithelial lesions [9].

The present study includes the various lesions of cervix in women complaining of leucorrhoea with the help of cervical cytology with Papanicolaou stain, with main emphasis on the precancerous and invasive cancers of cervix and to study the various risk factors in relation to the premalignant and malignant conditions of cervix [1].

### AIMS & Objectives

To evaluate the pattern of cervical smear cytology among leucorrhoea at a tertiary care centre.

**Materials and Methods**

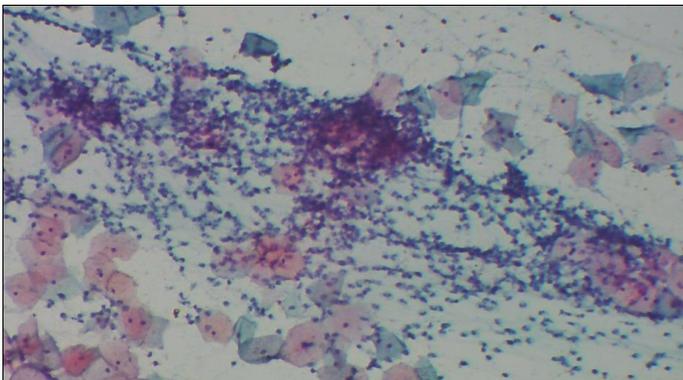
The present study was conducted among 150 women who came with the complaints of vaginal discharge during the period of October 2018-December 2018 in the Department of Obstetrics and Gynaecology Sree Mookambika Institute of Medical Sciences were taken into the study. Women with vaginal discharge, married women are included and unmarried, those having cervical cancer were excluded. As told by the patients on questioning, the Leucorrhoea was found to be of white discharge or yellowish discharge, blood stained and foul smelling discharge. Smears were taken with a thorough history in particular reference to age at first child birth, parity, personal and genital hygiene, history of husband suffering from any sexually transmitted diseases, vaginal discharge, mass per vaginum, duration of labour and history of sexually transmitted diseases were elicited. Cervix was visualized with Sim's speculum and associated conditions like erosion, ectropion, hypertrophy, endocervicitis, suspicious growth on cervix and elongation of cervix were noted. After a thorough vaginal examination Pap smears were taken. A sample was taken from the ectocervix by rotating a wooden Ayre spatula 360°. The sample was quickly smeared onto a labelled glass slide and fixed with 95% ethyl alcohol in a jar. The glass slides were sent to the Department of Pathology for cytopathological examination. Laboratory results were reported according to the new Bethesda System. The system broadly divides lesions into those negative for intraepithelial neoplasia and epithelial cell abnormalities (ECA) that include squamous and glandular cells [10].

**Observations and Results**

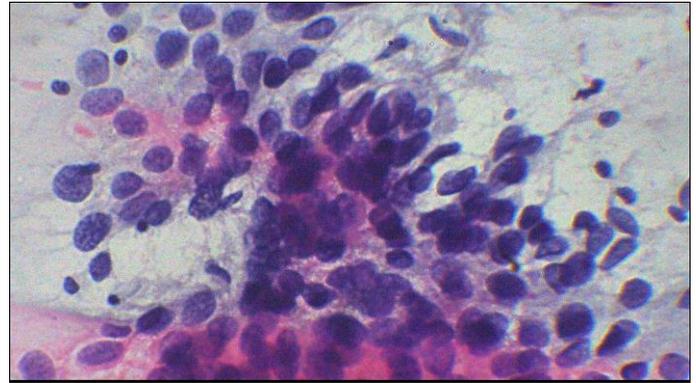
Out of 150 study participants majority of them belongs to age group of 30-35. Majority of them belong to lower middle class (65%) followed by upper lower class. (23%). Almost all the participants are from nuclear family. 68 % of the participants are multipara.

The cytological patterns observed were:

Normal=4 (2.6%), Inflammatory=135(90%), LSIL(Low grade squamous intraepithelial lesions) =4 (2.6%), HSIL (High grade squamous intraepithelial lesions) =1(0.6%), ASCUS (Atypical squamous cells of undetermined significance)=6 (4%).High percentage of smears were inflammatory (90%), cervical squamous intraepithelial lesions were seen in 5 cases.4 cases were categorized as LSIL and 1 case as HSIL.



**Fig 1:** Pap smear with cytological feature suggestive of inflammatory smear



**Fig 2:** Pap smear with cytological feature suggestive of High grade squamous intraepithelial neoplasia

**Discussion**

In the present study “Pap” smears of 150 women complaining leucorrhoea are collected from gynaecology O.P. in our hospital. The cases belonged to different age groups in reproductive life, socio-economic classes and with a complaint of vaginal discharge with clinical findings. The cytological evaluation carried out on 150 women with vaginal discharge revealed as expected maximum number of inflammatory smears (90%). SIL's were found in 5 cases (3.2%) and thus ascertains the utility of cytological surveillance in symptomatic women for early detection of cervical cancer.

This result is comparable to the work done by Renuka Venkata Inuganti Dept. of Obstetrics and gynaecology, Guntur Medical College, Guntur, A.P [1], India which revealed maximum number of inflammatory smears (93%), SIL's were found in 8 cases (7%). This result is comparable the world study in Thailand [11] in june 1990 where pelvic examinations were done in 1906 women with the range of ages were between 14-85 years. 74.7% of cases had undergone Pap smear examinations. The percentage of clinical diagnosis in women, who underwent pelvic and Pap smear examinations. No abnormal findings 14.9 (10.5), vulvovaginitis and leucorrhoea. 10.1 (9.7) cervicitis and cervical erosion. 5.6(1.9) bleeding per os, 3.6(.3) abortion and 3.3(1.3) adnexitis. The mean age of women with various diseases were 27years in cases of abortion, 30-34 years in women with the inflammation of vulva, vagina, cervix and adnexa including bleeding per os. 41-45 years in women with cervical polyps, suspected carcinoma, precancer and carcinoma of cervix combined with myoma uteri, 48 years women with prolapsed.

This result is also comparable to the work done by Yogita Patel [12] which showed out of 115 cases the inflammatory lesion was 93% and SIL was 7% and work done by Karuma *et al.* [13] where in total 100 cases 48% showed inflammatory lesion and SIL in 12%.The study revealed a rising incidence of SIL with increasing age and parity. Hence cytological investigation should be performed on all women complaining of discharge to detect the presence of premalignant lesions of the cervix. Cancer cervix is being the leading cause of morbidity and mortality in women, efforts are going on for the last century, so that immediate intervention can be done at an early stage, to detect cancer of cervix. Maximum number of SILS are reported from patients with cervical erosion, endocervicitis and hypertrophied cervix.

## Conclusion

Out of 150 cases screened, 2.6% were normal smears, 90% were inflammatory smears, 2.6% were LSIL, 0.6 was HSIL, 4% belonged to ASCUS. The various risk factors like early age at marriage, increased marital life, increased parity and poor socio-economic status are known to be directly related to the increased incidence of all cervical SILs. Also early age at 1st child birth, illiteracy, poor personal and genital hygiene, poor nutritional status, vitamin deficiencies and history of chronic leucorrhoea are associated with high incidence of cervical SIL.

The cervical squamous intraepithelial lesions (SIL) have long course to turn into the invasive stage. So, its detection early by "Pap Smear" reduced the mortality and morbidity with cervical cancer. This cytological screening should be recommended as part of routine medical examination in gynaecological practice.

## References

1. Koteswari K, Rao N *et al.* A Study of Pap smear Examination in Women Complaining of Leucorrhoea, DOI: 10.9790/0853-14143742, e-ISSN: 2279-0853, p-ISSN: 2279-0861 Ver. IV. 2015; 14(1):37-42.
2. Patel M, Pandya A, Modi J. Cervical Pap Smear Study And Its Utility In Cancer Screening, To Specify, The Strategy For Cervical Cancer Control. National Journal of Community Medicine. 2011; 2(1). ISSN: 0976 3325
3. Bengtsson E, Malm P, Screening for Cervical Cancer Using Automated Analysis of PAP-Smears, 2014, Article ID 842037
4. Warpe B, Warpe S, Sawant S. An institution-based cervical PAP smear study, correlation with clinical findings & histopathology in the Konkan region of Maharashtra state, India. Walawalkar International Medical Journal. 2016; 3(1).
5. Al-khudairi H, Abu-Zaid A, Alomar O *et al.* Public Awareness and Knowledge of Pap Smear as a Screening Test for Cervical Cancer among Saudi Population in Riyadh City. Cureus. 2017; 9(1):e984. DOI 10.7759/cureus.98
6. Ghare Naz M, Kariman N *et al.* Educational Interventions for Cervical Cancer Screening Behavior of Women: A Systematic Review, Asian Pacific Journal of Cancer Prevention, DOI:10.22034/APJCP. 2018; 19(4):875-884.
7. Bamanikar S, Baravkar D *et al.* Study of Cervical Pap Smears in a Tertiary Hospital, Indian Medical Gazette, 2014.
8. Smith JS, Backes DM, Hoots BE *et al.* Human papillomavirus type distribution in vulvar and vaginal cancers and their associated precursors. Obstet Gynecol. 2009; 113:917-924.
9. Cardosi RJ, Bomalaski JJ, Hoffman MS. Diagnosis and management of vulvar and vaginal intraepithelial neoplasia. Obstet Gynecol Clin North Am. 2001; 28:685-702.
10. Sachan PL, Singh M, Patel ML, Sachan R. A study on cervical cancer screening using pap smear test and clinical correlation. Asia Pac J Oncol Nurs. 2018; 5:337-4.
11. Pair Wuti S. Department of Obstetrics & Gynaecology, Faculty of Medicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand: Pap smear examination of women post-treated for genital organ diseases by operation and radiation: J Med Assoc thai. 1990; 73(11):610-4.
12. Yogita Patil M, Consai RN. Pap smear study of cervical cytology. Int J Scentific Research. 2014; 3(11):425-426. ISSN no 2277-8179
13. Karuna Gaspanal V, Van Dan Brule R. The clinical profile and cervical cytomorphology. Indian Journal of Pathol. Microbiol. 2003; 46(2):78.