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## Importance of Papanicolaou (Pap) smear in Cervical Cancer screening in a tertiary care hospital

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### ABSTRACT

Cancer cervix is a very common disease in Indian women, especially in the multiparous, and in the older age group women mostly belonging to the low socio economic group. This study was conducted to determine the importance of the Papanicolaou (Pap) smears for the diagnosis of Pre- malignant and malignant lesions of the cervix. Pap smears of 300 women who attended the Gynaec Out patient Department at Shadan Institute Of Medical Sciences and Post Graduate Medical Centre, Hyderabad, were examined. In this study 156 (52%) had normal smears, 109 (36.33%) showed inflammatory changes, and 35 (11.67%) showed Premalignant or Malignant changes. The Pap smear examination is an useful test to diagnose neoplastic lesions of the cervix.

**Keywords:-** Papanicolaou (pap) smear, Cervical cancer, pre malignant and Malignant lesions.

### INTRODUCTION

Worldwide, malignant lesions of the cervix represents the most frequent cause of mortality and morbidity and the third most common cause of cancer deaths in females[1]. The Papanicolaou (Pap) test is a screening test performed using cells from the uterine cervix. The Pap test was introduced as a cervical screening test in 1943 by George Papanicolaou, after whom it is named. The test is simple, quick and painless. With the woman lying on an examination table, the clinician inserts a speculum in to her vagina to open it and then, using a wooden scraper, takes a sample of cells from in and around the cervix; this is placed on a glass slide and rinsed in liquid fixative and sent to the laboratory for examination[2]. The Papanicolaou cervical cytology test is capable of detecting cervical cancer at an early stage and is used widely in developed countries, where it has decreased both the incidence and mortality of cervical cancer. It has been estimated that the use of simple and cost-effective technique has reduced the incidence of cervical cancer by atleast 70%. Even today, many developing countries lack the facility to carry out widespread Pap screening [3, 4, 5].

### MATERIALS AND METHODS

This study was done in Shadan Institute of Medical Sciences & Post Graduate Research Centre on 300 women attending the Gynaec Out patient aged from 19-70 years. History and other relevant information were recorded in a specially designed proforma. Written informed consent was obtained from all patients before the smear was taken.

Pregnant women & Hysterectomised women were excluded from this study. Before taking the Pap smear we ensured that the patient was not menstruating. The samples were smeared on two glass slides and were sent for pathological examination. All the smears were classified according to Bethesda system 2001[6].

## RESULTS

In this study 300 Pap smears were examined. Out of these 156 (52%) had normal smears, 109(36.33%) showed inflammatory changes . 35(11.67%) smears showed premalignant or malignant changes.

Of these 35 smears which showed premalignant or malignant changes.

- 6 smears (17.14%) showed low grade dysplasia.
- 12 smears (34.29%) showed moderate dysplasia.
- 16 smears (45.71%) showed severe dysplasia.
- 1 smear (2.86%) showed invasive cervical carcinoma.

Among the 35 smears showing pre- malignant and malignant lesions

- 85% gave complaint of vaginal discharge.
- 62% had early marriage.
- 60% belonged to post menopausal age.
- 59% had history of multiparity.
- 58% belonged to low socio-economic group.

None of the patients were smokers. None used oral contraceptive pills. Six patients gave the history of Intra Uterine Contraceptive Device usage. Only one case had a previous pap test in the last two years. Rest of the 34 cases never had a Pap test before.

## DISCUSSION

In our study low income group women were found to be at a high risk of developing cervical pre-malignant and malignant changes, which is because of the higher prevalence of risk factors in this group. Low Socio-Economic Status was seen in 58% patients in our study. This is comparable to the study in California which showed low income women were at high risk of developing Cervical cancer [7, 8]. In this group only one patient had awareness about the Pap test, rest were not aware of the Pap test. 62% had early marriage and 59% had multiparity—these were the two common risk factors.

The overall frequency of normal, inflammatory, pre-malignant and malignant smears was 52%, 36.33%, and 11.67%. Of the 11.67%( 35 smears ) showing Pre-malignant and Malignant changes 6 smears (17.14%) showed low grade dysplasia.

- 12 smears (34.29%) showed moderate dysplasia.
- 16 smears (45.71%) showed severe dysplasia.
- 1 smear (2.86%) showed invasive cervical carcinoma.

## CONCLUSION

The Pap test is an effective screening test to diagnose neoplastic gynaecological disease. This simple test will diagnose the disease early and reduces the morbidity and mortality due to cervical carcinoma. Our Indian Population has got poor awareness regarding the importance of this simple diagnostic test resulting in very poor coverage with the Pap test. The Gynaecologists should strive for disseminating information and increase awareness about the importance of this simple cancer screening test amongst the general population.

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