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ORIGINAL ARTICLE

WELL WOMAN CLINIC-SCREENING PROGRAM FOR CERVICAL CARCINOMAS

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ABSTRACT: Cervical cancer is a common cancer occurring in women in the reproductive age group. It is also a cancer that can be easily prevented by taking Cervical Smears, staining them by the Papanicalou's stain, diagnosing and treating them at an early stage. It is a very cost effective, sensitive, specific and easy method of early detection of cervical cancer and thereby helps in preventing the mortality and morbidity caused by invasive carcinomas. This screening program was conducted in the outpatient department of Gandhi hospital. All the women between the age of 21 and 65years were included. The antenatal women were excluded. A total of 2864 women were screened and 2562 Pap smears were done. 228 High grade intraepithelial lesions [HSIL] and 365 Low Grade intraepithelial lesions [LSIL] were diagnosed. Cervical biopsy was done. Curative treatment was offered to all those who had intraepithelial lesions on biopsy. Hence such screening programs are of great help in detecting early cancer and preventing invasive cancers. Thus reducing mortality and morbidity associated with invasive cancers.

KEYWORDS: Screening, Pap Smears, Pap stain, abnormal smears.

INTRODUCTION: Cervical cancer causes more than 26%of deaths worldwide. In India there are 72,000 new cases every year, despite it being the easiest female cancer to prevent, with regular screening tests and follow-up. Screening tests can help in preventing cervical cancer by early diagnosis. The Pap test (or Pap smear) looks for precancerous changes on the cervical cells that might become cervical cancer if not treated appropriately in time. The Pap test is recommended for all women between the ages of 21 and 65 years old[1.]

Effective screening programmes for cervical cancer in low- and middle-income developing countries**-** as suggested by Rengaswamy Sankaranarayanan[2] states that frequently repeated cytology screening programs either organized or opportunistic have led to a large decline in cervical cancer incidence and mortality in developed countries. In contrast, cervical cancer remains largely uncontrolled in high-risk developing countries because of ineffective or no screening. Worldwide, cervical cancer claims the lives of 231 000 women annually, over 80% of whom live in developing countries, Cervical cytology is considered to be a very specific test for high-grade precancerous lesions or cancer. Cytology is estimated to have a mean sensitivity of 58% and a mean specificity of 69%.Cervical Cancer Screening in India as recommended by Partha Basu[3] states that cervical cancer is the most common cause of cancer deaths among women in India. Nearly 130,000 new cases of cervical cancer occur each year in our country and 80,000 women die annually from the disease. It is one of the most reliable and effective cancer screening tests available as it is a very cost effective, sensitive, specific and easy method of early detection of cervical cancer. It is reported as "normal," "unclear," or "abnormal."[4]

Normal-a normal (or "negative") result means that no precancerous cell changes were found. Unclear-Inconclusive, ASC-US or AG-US is when cervical cells look abnormal and the changes could be related to changes like pregnancy, menopause, or an infection. Abnormal- means that cell changes are

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found on cervix. It does not mean that it is cancer. Abnormal changes on cervix are likely caused by HPV. The changes may be minor (low-grade) or serious (high-grade). Most of the time, minor changes go back to normal on their own. But more serious changes can turn into cancer if they are not treated properly. The more serious changes are often called "precancerous", because they are not yet cancer, but they can turn into cancer over a time. In rare cases, an abnormal Pap smear can show cancer.[5]

AIMS: Screening was aimed to detect precancerous changes, which, if not treated, may lead to cancer.

MATERIAL AND METHODS: Cytological examination is done by conventional –pap smears once in every 3 years (Strong recommendation).[6] For ages between 21- 65 years of age Current guidelines define adequate screening as three consecutive negative cytology results or two consecutive negative co-tests within 10 years before cessation of screening, with the most recent test performed within 5 years, and can be stopped when the woman is more than65 years with adequate screening history.[7]

A screening program for all the women between the ages of 21 to 65 years was conducted at the Gynecology Outpatient department for duration of one year. Pap smears were collected and stained by the Papnicolaou stain and were reported according to the Bethesda system. The program was conducted after taking the consent from the ethical committee of the hospital.

RESULTS: A total of 2864 women were screened and 2562 Pap smears were done.228 High grade intraepithelial lesions [HSIL] and 365 Low Grade intraepithelial lesions were diagnosed. Cervical biopsy was done. 208 of HSIL were insitu carcinomas on biopsy, 10 were reactive atypia due to inflammation, 5 were moderate dysplasia and 5 were lost to follow up. Of 365 LSIL 300 showed mild dysplasia, 36 showed insitu changes and 29 were reactive atypia.Of the ASCUS 266 showed LSIL,58 showed HSIL and rest were reactive.68 of AGUS showed malignancy on biopsy and rest were reactive with squamous metaplasia. In all 941 cases of malignant and premalignant conditions were detected. Curative treatment was offered to all of them.

Total no. of women screened	Total no. of PAP smears done	Inflammatory smears	ASCUS	AGUS	LSIL	HSIL	Inadequate for reporting
2864	2562(90%)	856(33%)	569(22%)	354(14%)	365(14%)	228(9%)	220(9%)

Total number of patient screened and precancerous conditions diagnosed by PAP Smears

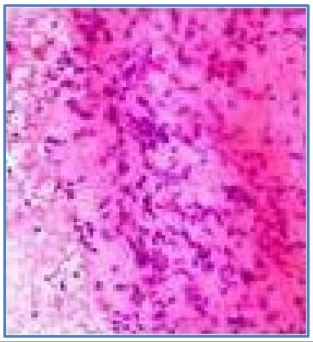

Fig. 1: PAP smear showing Atypical squamous cells-ASCUS[10x]

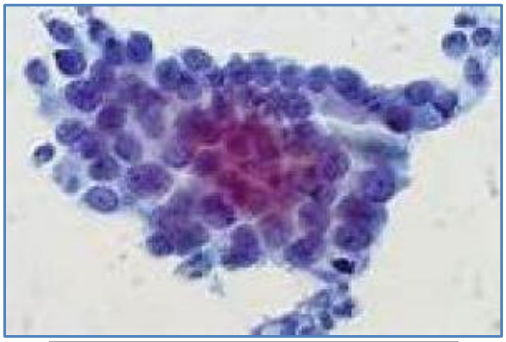

Fig. 2: PAP smear showing Atypical glandular cells[40x]

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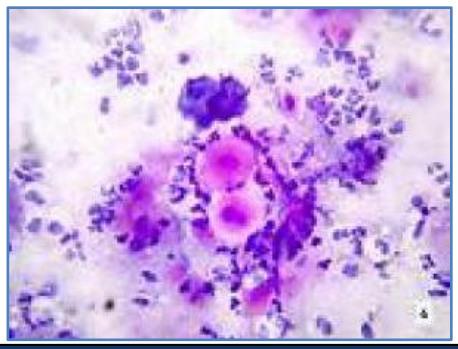

Fig. 3: PAP smear showing Low Grade Intra epithelial lesion-LSIL [40x]

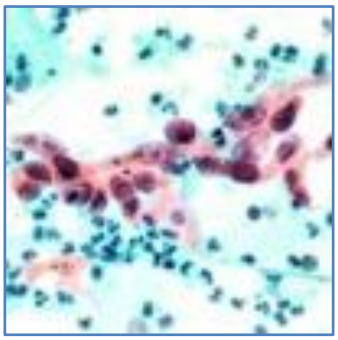

Fig. 4: PAP smear showing High Grade Intra epithelial lesion-HSIL[10x] [40x]

Cervical dysplasia that is seen on a Pap smear is called squamous intraepithelial lesion (SIL).[8] These changes may be: Low-grade (LSIL), High-grade (HSIL), Possibly cancerous (malignant), Atypical Squamous cells (ACUS) or Atypical glandular cells (AGUS).[9]

DISCUSSION: All the women between ages of 21 to 65 years are at risk of developing cervical cancer and most of whom will be without symptoms. Screening for cervical cancer was conducted at the Gynecology Out Patient department for all these women. Screening is only effective if there is a well-organized system for follow-up and treatment. Hence Gandhi Hospital, a multi-specialty hospital was ideal to carry out this screening program. Women who are found to have abnormalities on screening were followed-up, confirmation of diagnosis by histopathology of cervical biopsy and required treatment was given. A total of 2864 women were screened and 2562(90%) PAP smears were taken of which inflammatory were 569(22%), 856(33%) were ASCUS, 354(14%) were AGUS, 365(14%) were LSIL, 228(9%) were HSIL and 220(9%) were inadequate for reporting.

Among several tests used in screening for cervical cancer the Pap smear (cytology) is the only test that has been used in large populations and that has been shown to reduce cervical cancer incidence and mortality[10]. Other tests (VIA, VILI, HPV) show promise but there is as yet no comparable evidence on their effectiveness. Large studies are still under way.

Cervical Screening Programs in rural India [10], having screened 131,748 women, showed that screening programs are 72% sensitive and 94% specific.

A Case-control Study by E. Aileen Clarke and Terence W. Anderson[11] indicated that**,** there is a relative risk of invasive cancer of 2.7 in women who had not been screened by Pap smear, compared with those who were screened. These results support the belief that the Pap smear is an effective screening procedure for cervical cancer. Screening test should be advised to all asymptomatic and apparently healthy women within the target age. Indian group of experts recommended that the ideal age for screening should be 30 to 59 years and that women should be screened once in every 5 years.

CONCLUSION: It is clearly evident that by conducting such screening programs, the incidence of invasive cervical cancer can be prevented and also the mortality and morbidity associated with it. It is a very cost effective, sensitive, specific and simple outpatient method. Once intra-epithelial lesions are diagnosed on pap's smear, a cervical biopsy can confirm the diagnosis and prompt treatment can be given.

Hence such screening programs are of great help in detecting cancer cervix at an early stagewhich gets curative treatment and preventing invasive cancers thus reducing mortality and morbidity associated with them.

Abbreviations used:

1. ASCUS- Atypical squamous cells
2. AGUS- Atypical glandular cells
3. LSIL- Low Grade Intra epithelial lesion
4. HSIL- High Grade Intra epithelial lesion
5. SIL-Squamous intraepithelial lesion
6. HPV -Human Papilloma Virus
7. VILI-Visual Inspection of Cervix with Lugols Iodine
8. VIA-visual Inspectin Of Cervix with Acetic acid

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