

A Study of Screening of Cervical Cancer at the Community Level

Ghosal Kakoli

DGO, Assistant Lecturer, Dept. of Community Medicine, Terna Medical College

Pandit Daksha

MD. Professor and Head, Dept. of Community Medicine, Terna Medical College

Joshi Purva

MBBS. Postgraduate Resident, Dept. of Community Medicine, Terna Medical College

Patankar Rubina

DPH, Assistant Lecturer, Dept. of Community Medicine, Terna Medical College

Behera Abhiram

MA. Biostatistics Lecturer, Dept. of Community Medicine, Terna Medical College

Ghorpade Kanchanmala

MD. Dean, Terna Medical College

Abstract

Context: Cervical cancer till date is the commonest cancer of women of reproductive age group. It is a disease with long latent period and progresses in stages as: inflammation→mild→moderate→severe dysplasia→carcinoma in situ→invasive cancer. Prevention of carcinoma cervix can easily be done by regular screening of women of reproductive age group. In the days when diagnostic and curative endoscopic procedures have conquered the field of gynaecology, PAP SMEAR test is still an effective method for screening of cervical cancer at the community level. *Aims:* To find out the prevalence of cervical cancer in urban slum population of Turbhe, Navi Mumbai. *Settings and Design:* An OPD based cross sectional study, conducted at Urban Health Centre, Turbhe, Navi Mumbai. *Methods and Material:* Participants for the study were –married, parous women, more than 30 yrs of age, who attended the OPD. An informed consent was taken and a pre –tested questionnaire was filled up. Vaginal smear was taken with the help of Cusco’s Speculum and cotton swab stick. Slides were sent for histopathological examination. *Statistical Analysis Used:* SPSS version 20. *Results:* 1.9% of participants had cervical dysplasia, 95.1% had inflammatory smear and 2.9% of participants had normal smear. *Conclusions:* PAP smear is a simple procedure which can even be carried out in minimum time and requirements. By this procedure cervical dysplasia can easily be detected and treated, and thereby burden of cancer cervix can easily be reduced. It is observed that creating awareness activities in a small setup at community level, increases the voluntary participation by the women. The study also deals with various risk factors for cervical cancer.

Keywords: Community Awareness; Cusco’s Speculum; Dysplasia; Carcinoma in Situ.

Introduction

Cervical cancer is the fifth most common cancer worldwide, second most common cancer in the women

worldwide, third most common cancer in India, and commonest cancer amongst women in India. Cancer cervix does not arise denovo. It follows a sequence of epithelial cell abnormalities at the transitional zone of cervix. Epithelial abnormalities progress in stages as follows: atypical squamous cells→atypical squamous cells of undermined significance→low grade squamous cell intraepithelial lesion→mild dysplasia (CERVICAL INTRAEPITHELIAL

Corresponding Author: Kakoli Ghosal, D- 402 Mayuresh Srishti Complex LBS Marg Bhandup West Mumbai 400078.
E-mail: kakoliband@rediffmail.com

NEOPLASIA)CIN-I→high grade squamous intraepithelial lesion!moderate and severe dysplasia, (CARCINOMA IN SITU)CIS/CIN-II &III→squamous cell carcinoma.Infection with Human Papilloma Virus(HPV) in association with the risk factors is responsible for carcinoma cervix. It takes 10-12 years for CIN-III to progress to invasive cancer.Early stages can easily be detected by regular screening of women by PAP test at the community level and thereby reducing morbidity and mortality from the disease.

Aims

To find out the prevalence of cervical cancer in an urban slum area of Turbhe, Navi Mumbai.

Objectives

- To find out the prevalence of cervical cancer in Turbhe community .
- To Determine The Various Risk Factors For Cervical Cancer

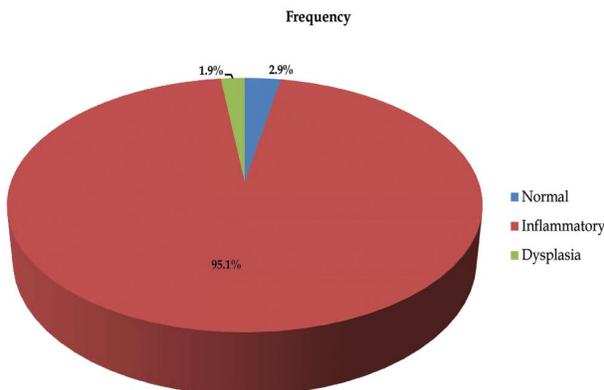
Study design and Methods

It was a cross sectional study conducted at Turbhe OPD. PAP smear screening of 103 parous, married women, more than 30 years of age, was conducted. Informed consent was taken and a pre-tested questionnaire was filled up before conducting the test. Pap smear was taken using Cusco's speculum and cotton swab stick by aseptic technique. Smears were fixed by ethyl alcohol and sent for cytological examination.

Study Period

From January 2013- to July 2015

Results

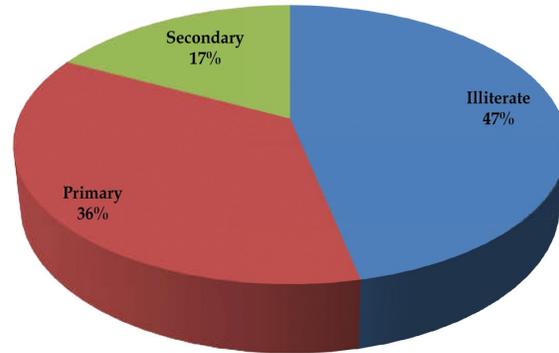


Graph 1: PAP Smear findings of participants

Table 1: Age group of participants

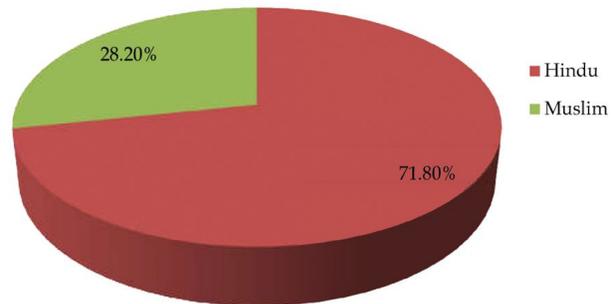
Age group	No. of Patients	Percentage
30 – 34	42	40.8
35 – 39	27	26.2
40 – 44	13	12.6
45 – 49	13	12.6
50 – 54	6	5.8
55 – 59	0	0.0
60+	2	1.9
Total	103	100.0

Education of Participants



Graph 2:

Religion of Participants



Graph 3

Table 3: Association between age at marriage of participants and their cytological findings

Age at marriage	Normal	Inflammatory	Dysplasia	Total(%)
<18	3	62	1	66(64%)
18-21	0	35	1	36(34.8%)
22+	0	1	0	1(0.9%)
Total	3	98	2	103

Chi square=1.922, P-value=0.750 Statistically not significant

Table 4: Association between parity of participants and cytological findings

Parity	Normal	Inflammatory	Dysplasia	Total (%)
1	0	1	0	1 (0.9%)
2	0	13	1	14 (13.6%)
3	1	27	0	28 (27.18%)
4+	2	57	1	60 (58.25%)
Total	3	98	2	103 (100%)

Chi square =3.067 P-value=0.800

Statistically not significant

Table 5: Association between age at first pregnancy of participants and cytological findings

Age	Normal	Inflammatory	Dysplasia	Total (%)
<18	2	11	0	13 (12.6%)
18-21	1	67	2	70 (67.9%)
22-25	0	17	0	17 (16.5%)
>25	0	3	0	3 (2.9%)
Total	3	98	2	103

Chi square =9.201 and P- value=0.163 Statistically not significant

Table 6: Association between presentation of participants at the time of screening and their cytological findings

Presentation	Normal	Inflammatory	Dysplasia	Total (%)
Symptomatic	1	79	2	82(79.6%)
Asymptomatic	2	19	0	21(20.3%)
Total	3	98	2	103

Chi square=4.531 P- value=0.104 Statistically not significant

Discussion

Though HPV is the causative agent for carcinoma cervix, only 1% of women infected with HPV develop the disease. It is the association of other risk factors with HPV infection that leads to development of Ca Cervix. It is a malignancy with long latent period. Disease progresses in stages from atypical squamous cell → squamous cell carcinoma. It takes about 10-12 years for CIN-III to progress to invasive cancer. Early stages of intraepithelial changes can easily be detected by PAP smear and thereby Ca Cervix can be prevented.

Studies conducted by Jissa V Thulaseedharan et al revealed education is the fundamental factor among the sociodemographic determinant of cervical cancer. In our study 46.6% of the participants were illiterate which proves our community to be at high risk for Ca Cervix.

Early age at marriage is also a proven risk factor for carcinoma cervix. Studies conducted by Thakur et al revealed the same. In our study 64% of participants were married <18yrs of age which puts them at risk.

Multiparity is another risk factor for Ca Cervix. Studies conducted by M. Hinkula et al confirmed the same. 58.2% of our study population had parity >4.

Studies conducted by Jan Yasmeen et al, Satya B. Paul et al & Roopali Fotra et al revealed incidence of Ca Cervix is less in muslim women than in hindu women. It may be due to circumcision done in muslim males. Though not statistically significant, our study revealed dysplasia in 1.9% of participants all of them were hindus. 71.8% of our study population were hindus which again puts them at high risk.

In studies conducted by Manjit Singh Bal et al, symptomatic patients with complaints like vaginal discharge, post-coital bleeding, inter-menstrual

bleeding, dyspareunia & pain lower abdomen, epithelial abnormalities were found in 5% smears. In our study 1.9% of participants had dysplasia & 95.1% had inflammatory smear. Discrepancy with our study may be because we had both symptomatic and asymptomatic subjects. Another factor may be for use of cotton-swab sticks for taking the smears where epithelial cells get entangled thereby reducing sensitivity of the test.

88.23% of our total asymptomatic participants were having inflammatory lesion. Studies showed that Ca Cervix with symptoms had 5-yr survival rate 10% whereas early detection had survival rate 90%. This proves PAP screening was highly indicated for our study population.

Awareness about carcinoma cervix and specific knowledge on screening of Ca Cervix are critical elements in determining whether a woman will volunteer for PAP test. Studies conducted by Robin Marie Beining et al revealed 69.6% of women were not aware of cervical cancer and 16.4% were aware. In our study 2% of women knew about Ca Cervix and none of them knew about the risk factors of Ca Cervix. During the study period we observed more women volunteered for PAP screening towards the end of our study period than before. Studies have shown less knowledge about screening significantly predicted underutilization of PAP test facility.

In our study association of multiple sexual partners with Ca Cervix could not be elicited. At the community level it was not possible to elicit information on the number of sexual partners as it is a sensitive and personal issue.

A sample size was small in this centre based study, so the results obtained were not statistically significant. It is proposed to conduct large sample sized study in the community.

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