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CERVICAL CANCER SCREENING AND ITS OUTCOME - AN OBSERVATIONAL STUDY

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ABSTRACT

With knowledge of the signs and cancer screening programs, cervical cancer can be detected early. It has been discovered that with early detection campaigns, the annual incidence and prevalence have fallen by 50–70% in several developed countries. The incidence of HPV related cervical happens most in developing countries; because of their poor screening systems in public healthcare systems. To screen patients for cervical cancer and study the symptoms presented. We screened 498 women for cervical cancer during our study period i.e., 6 months in G. G. G. Hospital, Jamnagar. We collected the personal and clinical history of the patients from the Gynecology department. PAP test was carried out as our routine cytopathology practice. Patients age ranges from 18 to 86 years and most patients fall between 26 to 45 years.

We found 0.6% of patients with cervical cancer. 49.4% of patients were married below the age of 18 years and more than 90% belonged to the Hindu community. 66% of patients had full-term vaginal delivery (FTVD) whereas only 1.1% had both Full-term normal delivery and full-term cesarean section and 93% delivery were institutional delivery. The most common symptom was white discharge and 65.6% of patients complained about it. The majority of the women in our study were housewives and were financially dependent on their husbands. There is a need to improve these cervical cancer screening services so that more women may access them. More awareness campaigns are required to fill identified knowledge gaps.

Keywords: cervical cancer, malignancy, woman, Parity, awareness, housewives, symptoms

INTRODUCTION

20% of cervical cancer cases recorded worldwide originate in India. Four cancers—breast, cervical, oral, and lung—account for more than 41% of all cancer cases in the country, with mouth and breast cancer being more common in males and breast and cervical cancer in women. Cervical cancer is the first malignancy that comes to mind when discussing prevention **[1]**.

Cervical cancer is a prevalent global health issue that affects both young and elderly women, with a prevalence rate of approximately 14%. Cervical cancer is the growth of abnormal cells in the cervical tissue (cervix) and is a primary cancer originating from the cervix. The cervix is the part of the front end of the uterus that protrudes into the vagina. The incidence of cervical cancer is attributed to the human papillomavirus (HPV), which is predominantly transmitted through sexual activity and is known to compromise the immune system, increasing the risk of malignancy. Predisposing factors such as smoking, oral contraceptive consumption, HIV, and Chlamydia infections also increase the risk of cervical cancer **[2-4]**.

The incidence of HPV-related cervical cancers is reported from different regions around the world, but it happens for the most in developing countries; because of their poor screening systems in public healthcare systems. Most cases of cervical cancer happen in elder women with more than 35 years old because of the persistence of HPV infection regarding oncogenic types **[5]**.

MATERIALS AND METHODS

The present study was an observational study carried out on patients presenting in Gynaecology department from November 2022 to April 2023 at G.G.G. Hospital, Jamnagar. Approval was obtained from the Institutional Ethics Committee (IEC) and informed consent was obtained from participants. Confidentiality was maintained for each subject in every aspect as per IEC norms. Participants who were not willing

were excluded from the study. The complete assessment was done by taking a personal and clinical history and the study variables are mentioned in **Table 1**. Papanicolaou smear test was performed to diagnose the cervical malignancy which was carried out by the cytopathology department of Shri M.P. Shah Medical College, Jamnagar **[6]**. Results for the same were collected for the study purposes. Data analysis including statistical tests was carried out using Microsoft Office 2010.

Table 1: Description of the study variables

Study Variable	Categories
Personal Data	Age at the time of screening, Age of marriage, Residence, Community, Occupation
Menstrual history	Menarche
Labour history	Mode of delivery, Place of delivery
Obstetric History	Gravidity, Parity, Living, Abortion, Tubal ligation
Symptoms	Vaginal discharge, Irregular menses, Foul smell, burning micturition, Itching, Abdominal pain, White discharge

RESULTS AND DISCUSSION

Total 498 women were screened for HPV infection. Results obtained from the study are elucidated in below tables.

Table 2 shows the personal data of the screening program. In our study patients age ranges from 18 to 86 years where most patients fall between 26 to 45 years. A study from Reichheld *et al.,* found similar data in their study **[7]**. 49.4% of patients were got married below the age of 18 years whereas Reichheld *et al.,* found 33.1%. Most of the patients were from urban area i.e., 96.4%. More than 90% belong to Hindu community.

Our study found that 79.7% of women had menarche at the age of 13. Details for the same are mentioned in **Table 3**.

Out of 447 patients, 66% patients had a full-term vaginal delivery (FTVD) whereas only 1.1% had both Full-term normal delivery and full-term caesarean section. We also found that 93% of deliveries were institutional deliveries. Details of the labor history are given in **Table 4**.

Reichheld et al found study shows no children in 9.3% of the surveyed sample whereas our study shows 5.9% **[7]**. Obstetrics history is given with the details of gravidity, parity, living, abortion, and tubal ligation in **Table 5**.

As per the interview answered by the patients, the most common symptom we found was white discharge. 65.6% of patients complained about it. Details are given in **Figure 1**.

By performing PAP test on all the patients, we found 0.6% of patients positive for cancer. Details are given in **Table 6**.

Table 2: Personal data of the screening program

Personal Data	Age	Frequency	Percentage
Age at a time of screening (n=498)	18-25	50	10.0
	26-35	174	34.9
	36-45	165	33.1
	46-55	66	13.3
	>55	43	8.6
Age of marriage (n=498)	<18	246	49.4
	18	32	6.4
	>18	207	41.6
	not known	13	2.6
Place of residence (n=498)	Rural	18	3.6
	Urban	480	96.4
Community (n=498)	Hindu	449	90.2
	Muslim	48	9.6
	Parsi	1	0.2
Occupation (n=498)	Housewife	487	97.8
	Job	11	2.2

Table 3: Menstrual history

Menstrual history	Age	Frequency	Percentage
Menarche (n=498)	12	3	0.6
	13	397	79.7
	14	61	12.2
	15	20	4.0
	16	7	1.4
	17	4	0.8
	18	3	0.6
	>18	3	0.6

Table 4: Labour History

Labour History	Count	Frequency	Percentage
Mode of delivery (n=447)	FTLSCS	36	8.1
	FTCS	19	4.3
	FTND/FTCS	5	1.1
	FTVD	295	66.0
	FTVD/FTCS	7	1.6
	FTVD/FTLSCS	11	2.5
	FTND	74	16.6
Place of delivery (n=446)	Home	31	7.0
	Hospital	415	93.0

Table 5: Obstetrics history

Obstetric History	Count	Frequency	Percentage
Gravidity (n=458)	<1	4	0.9
	1-4	414	90.4
	5-8	38	8.3
	>8	2	0.4
Parity (n=457)	0	27	5.9
	1-3	383	83.8
	4-6	47	10.3
Living (n=457)	<1	19	4.2
	1 - 2	287	62.8
	3 - 4	133	29.1
	>4	18	3.9
Abortion (n=454)	0	340	74.9
	1 to 2	105	23.1
	3 to 7	9	2.0
Tubal ligation (n=440)	No	386	87.7
	Yes	54	12.3

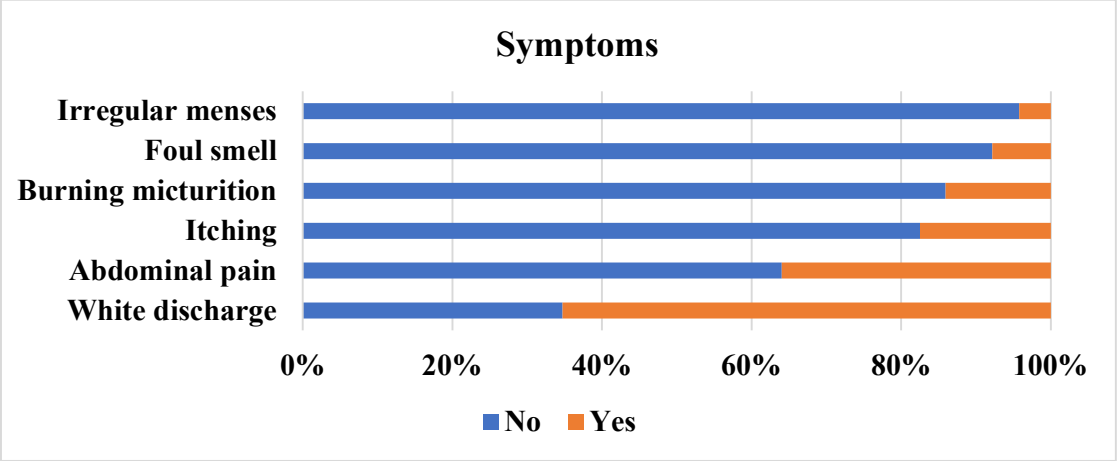

Figure 1: common symptoms observed in cervical cancer screening

Table 6: PAP test results

Grades	Frequency	Percentage
Cancer Positive	3	0.6
High Grade Squamous Intraepithelial Lesion (HSIL)	38	7.6
Low-Grade Squamous Intraepithelial Lesion (LSIL)	66	13.3
Negative Intraepithelial Lesions Malignancy (NILM)	391	78.5

Only 7.1% of the women aged 25 to 65 had ever had a cervical cancer screening **[7]**. Women of any age can acquire cervical cancer, but it often does so between the ages of 35 and 55, with the peak age of occurrence varying depending on the community **[8]**. In our study, cervical cancer patients range in age from 35 to 75. Similar findings have been reported by Arbyn and colleagues, who found that middle-aged women were primarily impacted by cervical cancer, particularly in underdeveloped nations **[9]**. This advanced age denotes a relative lack of knowledge and accessibility to comprehensive and equitable cervical cancer screening services in our nation. According to a study, age significantly affects the time and frequency of cancer screening **[10]**.

According to earlier reports, screening incidence varies greatly between states and between districts. The average prevalence of screening among women aged 30-49 was found to be 31.0% (29.7-32.4), which is higher than our study **[11]**.

We suspect that multiple factors may affect women's ability and desire to participate in screening. The majority of women were willing to be screened for cervical cancer and knew of locations for screening, but most of the women did not know about the screening tests. Screening is a preventative service, which is not a priority for asymptomatic and low-income people who are struggling with more acute day-to-day problems **[12]**.

Most of the women in our survey are housewives who rely on their husbands for

financial support. The decision to pay for screening is generally made by their spouses, which adds another barrier to access for women seeking essential preventive care. If the financial barrier were removed, women might be more inclined to request screening **[13]**. In general, women are generally not screened due to a fundamental lack of knowledge about prevention, time and financial constraints, and an overwhelming dearth of information regarding cervical cancer.

Previous research has shown that lifestyle and dietary choices are crucial for cervical cancer etiopathology and clinical outcome **[14]**. Although multiparous women were identified with cervical cancer at an earlier stage, this link was not statistically significant. However, it is generally known that multiparous women have an increased risk of developing cervical cancer **[15]**. A retrospective investigation carried out in a tertiary care hospital in Mangalore revealed similar results as well **[16]**. A retrospective investigation by Srivastava *et al*. revealed similar findings as well **[17]**.

In our study, white discharge was followed by abdominal pain, itching, burning micturition, and foul smell as the most prevalent clinical symptoms associated with the development of cervical cancer. Other research has observed similar results as well with different weights **[15, 18]**.

CONCLUSION

To conclude, there is a need to improve these cervical cancer screening services so that more women may access them regardless of where they live because good knowledge and favorable attitudes alone are insufficient to promote the uptake of the practice of screening. A need for accelerated national screening programs that target high-risk populations in order to increase awareness and early detection of cervical cancer. More educational initiatives are required to fill identified knowledge gaps and expand the frequency of cervical cancer screening for women.

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