

Epidemiological study of cervical cancer in the coastal region of Visakhapatnam

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Abstract

Background: Cervical cancer is one of the major public health problems for women in India according to the population-based study. It can be reduced through health education, screening and thereafter treatment of pre-cancers. However, over 80% of women with cervical cancer live in developing countries. In the majority of situations, most women do not have any access to awareness, screening and treatment programmes.

Methods: This is a study based on the knowledge of women regarding symptoms, risk factors, prevention and treatment of cervical cancer. A cross-sectional, self-administered questionnaire-based survey was conducted on 200 women from both urban and rural areas of Visakhapatnam, Andhra Pradesh.

Results: No significant differences were noted between rural and urban women in their knowledge of cervical cancer was noticed. Of the subjects studied, 41.4% were aware of cervical cancer as a type of cancer affecting women, only 10% of the population know the screening of cervical cancer.

Conclusions: The outcome of the results suggest the need for designing a strategy involving government action, conducting awareness, and screening programmes to minimise the occurrence of cervical cancer in this region.

Keywords: Cervical cancer, epidemiology, human papillomavirus, prevention, screening

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INTRODUCTION

Cancers are a large cluster of diseases that can be initiated in almost any organ or tissue of the body when abnormal cells or groups of cells multiply and become undifferentiated invasive to other body parts. This process is called metastasis which is a dangerous stage of cancer. Cancers are also called as neoplasm or malignant tumours.

According to the World Health Organisation 2019, cancer is the second-most cause of death worldwide,

with an estimation of 9.6 million mortality rates. Breast, colorectal and cervical are the most common carcinomas in women.^[1]

The fourth-most common cancer in women is cervical cancer, with an estimation of 570,000 observed new incident cases in female cancers.^[1-5]

China and India together contributed more than a third of the global cervical burden, with 106,000 cases in China and 97,000 cases in India, and 48,000 deaths in China and 60,000 deaths in India. Globally, the average age at

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diagnosis of cervical cancer was 53 years, ranging from 44 years (Vanuatu) to 68 years (Singapore). The global average age at death from cervical cancer was 59 years, ranging from 45 years (Vanuatu) to 76 years (Martinique). Cervical cancer ranked in the top three cancers affecting women younger than 45 years in 146 (79%) of 185 countries assessed.^[6]

The present study is to assess the risk factors for cervical cancer in women aged at 25–80 years. Significant association of cervical cancer was found with demographic parameters such as education, place of residence, early marriage, multiple sexual partners and availability of health services. Healthy hygienic conditions were found to be one of the preventive factors for cervical cancer. The identification of high-risk populations and starting early screening detection is found to be effective in precancerous identification of cervical cancer.^[7] Prevention interventions on this group would decrease the incidence of morbidity and mortality caused by cervical cancer.^[8]

Preventive programmes, lifestyle enhancement, cessation of smoking and effective treatment of precancerous lesions help in the prevention of cervical cancer.^[9,10]

MATERIAL AND METHODS

A cross-sectional study was designed to obtain knowledge on cervical cancer and screening for precancerous cervical lesions among women aged 20–70 years in Visakhapatnam, Vizianagaram and Srikakulam districts of Andhra Pradesh covering both urban and rural areas. Data were collected from 200 women who include housewives, employees and students who were registered in Mahatma Gandhi Cancer Hospital and Research Centre, Visakhapatnam, to undergo surgery, radiation and chemotherapy during the year 2019–2020.

The questionnaire comprised questions that addressed personal data and questions about knowledge concerning cervical cancer Screening. Demographic data including age, height, education, socio-economic status, marital status, number of sex partners, occupation status, age at first childbirth, symptoms, risk factors, alcohol consumption, Pap smear test and HPV vaccination.

RESULTS

The background characteristics of the respondents are necessary for contextualising the study. Table 1 depicts the socio-demographic characteristics of the respondents. The mean age of the participants was 36 years. The majority were in the age range 30–39 (46%) and 20–

Table 1: Sociodemographic characteristics among rural and urban women in coastal Visakhapatnam

Parameters	Characteristics	Urban	Rural	Total
		(n=115) No. (%)	(n=85) No. (%)	(n=200) No. (%)
Age (years)	20–29	20 (17.3)	30 (35.2)	50 (25)
	30–39	72 (36)	20 (23.5)	92 (46)
	40–49	14 (7)	15 (7.5)	29 (14.5)
	50–59	5 (2.5)	12 (14.11)	17 (8.5)
	≥60	4 (2)	8 (9.4)	12 (6)
Education	None	20 (17.3)	30 (35.2)	50 (25)
	Primary	14 (12.1)	15 (17.6)	29 (14.5)
	Secondary	9 (7.82)	8 (9.41)	17 (8.5)
	Graduate	72 (62.6)	32 (37.6)	104 (52)
Economic status	Lower	14 (12.1)	32 (37.6)	46 (23)
	Middle	84 (73.04)	38 (44.7)	122 (61)
	Upper	17 (14.78)	15 (17.6)	32 (16)
Occupation	Homemaker	99 (86.03)	62 (72.94)	161 (80.5)
	Student	2 (1.73)	10 (11.76)	12 (6.0)
	Employees	14 (12.17)	13 (15.29)	27 (13.5)

29 (25%) years. Urban women were younger with primary, greater education and higher socio-economic status than women in rural areas. About 80.5% of participants were working as a homemaker, 6% as students and 13.5% as employees.

Table 2 illustrates, in terms of marital status, 77% of the respondents were married. More women (63.5%) in

Table 2: Health characteristics among rural and urban women in coastal Visakhapatnam

Women parameters	Characteristics	Urban	Rural	Total
		(n=115) No. (%)	(n=85) No. (%)	(n=200) No. (%)
Marital status	Single	5 (4.3)	2 (2.3)	7 (3.5)
	Married	84 (73)	70 (82.3)	154 (77)
	Divorce-separated	12 (10.4)	6 (7.05)	18 (9)
	Widow	14 (12.7)	7 (8.23)	21 (10.5)
Age at marriage	≤20	68 (59)	54 (63.5)	122 (61)
	20–29	45 (39)	28 (32)	76 (38)
	30–39	2 (1.73)	3 (3.52)	5 (2.5)
Number of sex partners	1	108 (93)	79 (92)	184 (92)
	≥1	7 (6.08)	6 (7.05)	13 (6.5)
Number of children	0	6 (5.21)	3 (3.5)	9 (4.5)
	1–3	98 (85.2)	73 (85.8)	171 (85.5)
	≥4	11 (9.56)	9 (10.5)	20 (10)
Number of abortions	0	102 (88)	78 (91.7)	180 (90)
	1–2	12 (10.4)	3 (3.5)	15 (7.5)
	≥3	1 (0.86)	4 (4.70)	5 (2.5)
Use of contraceptives	Permanent	0	0	0
	Temporary	9 (7.8)	0	9 (4.5)
	None	106 (92.1)	85 (85)	191 (95.5)
Type of napkin	Homemade	96 (83.4)	79 (92)	175 (87.5)
	Branded	19 (16.5)	6 (7.05)	25 (12.5)
Presence of white discharge	Yes	13 (11.3)	11 (12.9)	24 (12)
	No	55 (47.8)	41 (48.2)	96 (48)
	Sometimes	47 (40.8)	33 (38.8)	80 (40)
Alcohol consumption	Yes	59 (51.3)	68 (80)	127 (63.5)
	No	56 (48.6)	17 (20)	73 (36.5)
Tobacco smoking	Yes	67 (58.2)	59 (69.4)	126 (63)
	No	48 (41.7)	26 (30.5)	74 (37)
Menstrual cycle	Regular	47 (40.8)	36 (42.3)	83 (41.5)
	Irregular	68 (59.1)	49 (57.6)	117 (58.5)

the rural stratum reported having the first intercourse at about the age of ≤ 20 years [Table 2]. Having more than one sexual partner was observed in 6.5% women. Multiparity (having >4 children) was observed in 10.5% of rural women. The frequency of abortions and the use of contraceptives was similar in both rural and urban women. The majority (92%) of rural women still use homemade pads. The presence of white discharge was said to be observed sometimes in about 40% of the women.

No significant differences were noted between rural and urban women in their knowledge of cervical cancer was noticed. Of the subjects studied, 41.4% were aware of cervical cancer as a type of cancer affecting women, only 10% of the population know the screening of cervical cancer.

DISCUSSION

In the present study, majority of the respondents were in the age range 20-39 (71%). This means that the majority of the respondents were still within the reproductive age group. This calls for the provision of reproductive health services to meet their sexual and reproductive health needs. It is observed that urban women were younger than women from rural areas. This observation suggests that cervical cancer detection is occurring later in rural women compared to urban women and calls for institution of more intense and planned screening for cervical cancer in rural women.

The present study brings to notice that the awareness of the knowledge on cervical cancer is low in the coastal region of Visakhapatnam amongst the middle-aged women in India. From the review of literature,^[11-18] screening with the socioeconomic profile, health characteristic profile of women on cervical cancer, and their belief towards the disease, it was noticed that there is a lack of awareness on the spreading of cervical cancer.

No significant difference is observed between rural and urban women in their knowledge of cervical cancer. Further, only 41.4% were aware of cervical cancer as a type of cancer affecting women; and only 10% of the population were aware regarding the screening of cervical cancer.

These observations point to a knowledge gap and may facilitate planned targeted studies and interventions for cervical cancer prevention, screening and treatment in the future among the middle-aged women in developing countries such as India. Educating the public about

effective cervical cancer screening strategies using a pap smear test is necessary. The most commonly found cancer in South Indian women is cervical cancer. Many Indian women lack both awareness about the disease, its prevention and treatment facilities. From the review of literature, it is clear that the HPV screening with the vaccination programme should be implemented and supported at the government level and also by the private sector.

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Conflicts of interest

There are no conflicts of interest.

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