



Socio Demographic, Reproductive and Clinical Profile of Women High Risk for Cancer Cervix

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Abstract

In developing countries Cervical cancer is the commonest cancer, causing death among women. One in every five women suffering from cervical cancer belongs to India. Young age, early marriage, multiple sexual partners, poor genital hygiene, history of abortions, high parity, tobacco and oral contraceptive use, cigarette smoking, race, low socio-economic status, HPV infection have been identified as significant risk factors for the development of Ca Cx. This observational study was done to study socio-demographic, reproductive and clinical profile of women high risk for cervical carcinoma.

Material and method: 154 women high risk for carcinoma cervix on the basis of signs and symptoms, between June 2020 to January 2021 were included in the study after taking informed written consent. A structured questionnaire was used to obtain information on demographic profile and sexual and reproductive profile. Data were analyzed.

Results: Majority of the women were below 45 years (75.3%), Hindu (78.6%), illiterate (63.7%), residing in rural area (51.9%) and belonging to lower socio-economic status (67.6%). 13.6% women were below 18 years at the time of marriage and first coitus. 57.7% women were having 2 or more children. Main presenting symptom was vagina discharge (59.7%) followed by irregular vaginal bleeding (26.6%) and post-menopausal bleeding (18.2%). On examination, 31.2% women had cervical erosion, 22.7% had hypertrophied cervix and 40.3% had unhealthy cervix.

Conclusion: women below 45 years, Hindu, illiterate, belonging to lower socio-economic status and from rural area are more at risk for cervical cancer. Early age at marriage, coitus and multiparous women are also at risk for cervical cancer.

Keywords: High risk, cancer cervix, socio-demographic profile

INTRODUCTION

Cervical cancer is one of the most public health burdens in the world. [1, 2] It is the second most frequent cancer among women 15 to 44 years old. Globally, more than 569,000 new cervical cancer and 311,000 women deaths by cervical cancer have been reported annually by the International Agency for Research on Cancer (IARC) Global Cancer

Observatory. [2,3] Over the past 30 years, the incidence and mortality rate of cervical cancer has been increased every year by 0.6 and 0.46% respectively.[4] World Health Organization (WHO) has reported that low and middle-income countries are taking the highest burden of cervical cancer. This is

mainly due to lack of effective screening schedules and limited uptake of pelvic examination.[5]

In developing countries Cervical cancer is the commonest cancer, causing death among women. One in every five women suffering from cervical cancer belongs to India.[6,7] In the developed countries, successful implementation of prevention and screening programme has decreased both incidence and mortality of cervical cancer. But in developing countries, over 80% of women with cervical cancer are still diagnosed at an advanced stage, which is significantly associated with poor prognosis.[8] Barriers to effective screening programme in country like India include a lack of awareness about the disease among the general population coupled with the geographical and economic inaccessibility to medical care.[9]

Epidemiological studies have shown the high risk Human PapillomaVirus (HPV) to be the most important risk factor and are present in 99.7% of the invasive cervical cancer worldwide.[9] Young age, early marriage, multiple sexual partners, poor genital hygiene, history of abortions, high parity, tobacco and oral contraceptive use, cigarette smoking, race, low socio economic status have also been identified as significant risk factors for the development of Ca Cx.[10] Very few studies have been done in Rajasthan State to know the socio-demographic profile of the women so keeping this in mind this observational study was done to study socio-demographic, reproductive and clinical profile of women high risk for cervical carcinoma.

MATERIAL AND METHODS

This was a hospital based prospective study done in the Department of Ob – GY, NIMS and S.M.S. Medical College, Jaipur between July 2020 to January 2021. Women having complains of excessive vaginal discharge, post- coital bleeding, post- menopausal bleeding, history of pain in lower abdomen and on per speculum examination with suspected cervical lesion or unhealthy cervix were included in the study after taking informed written consent. A structured questionnaire was used to obtain information on demographic profile and sexual and reproductive factors including age at marriage, age at first issue and parity. Data were entered into MS excel sheet and statistically analyzed.

RESULTS

Socio-demographic profile of the women high risk for cervical carcinoma is shown in Table 1. In our study, majority of the women (75.3%) were below 45 years and only 24.7% women were above 45 years. Mean age of the women was 35.29 ± 9.25 years. Maximum number of women in our study were from rural area (51.9%). 78.6% women were Hindu and 20% were Muslim and only 1.4% were Christian in present study. Majority of the women in our study belonged to lower socio-economic class (67.6%), 25.9% belonged to middle socio-economic class and only 6.5% belonged to upper socio-economic class. Maximum number of the women (63.7%) in our study were illiterate and only 36.3% women were educated from primary level to graduation.

Table 2 represents reproductive profile of the women. In our study 13.6% women were below 18 years of age at the time of first coitus. 56.4% women were between 18 to 25 years at time of first coitus and 29.8% women were above 25 years. Mean age of the women at the time of first coitus was 22.7 ± 3.8 years. 13.6% women were below 18 years of the age at the time of marriage, 52.6% were between 8 to 25 years and 33.8% above 25 years of age. Mean age of the women at the time of marriage was 22.8 ± 3.8 years. 37.7% women were below 20 years of age at the time of first child birth, 50.6% were between 20 to 30 years and 11.7% were above 30 years of age. Mean age of the women at the time of first child birth was 23.1 ± 5.8 years. In present study 57.7% women were para 2 or more, 36.3% were primipara and 5.8% were nullipara. Parity in our study ranged from para 0 to para 5. Mean parity was 1.7 ± 0.92 .

Clinical profile of the women is shown in Table 3. Main presenting symptom was vagina discharge and foul smeling discharge (59.7%) followed by irregular vaginal bleeding (26.6%) and post-menopausal bleeding (18.2%). On examination, 31.2% women had cervical erosion, 22.7% had hypertrophied cervix and 40.3% had unhealthy cervix.

DISCUSSION

Socio-demographic factors in women high risk for cervical cancer were analyzed in details. Maximum number of the women (75.3%) in our study were below 45 years of age. The present findings with respect to age were in contrast with the observations

made by Neha EL *et al*[9], Kour P *et al*[10] and Misra *et al*[11]. Mean age of the women was 35.29 ± 9.25 years which is in contrast with mean age observed by Neha EL *et al*[9] and Mohamed Berraho *et al*. [12] Mean age of the women in our study was comparable with mean age observed by Dasgupta A *et al*[13] in their study. As cervical cancer slowly progresses from precancerous conditions to advanced cancer, it reaches a peak in women in their 50s and 60s.[14] Maximum number of women in present study were from rural area, illiterate and belonged to lower and lower middle socio-economic class. Our results were consistent with results observed by Kour P *et al*[10], Mohamed Berraho *et al*[12], Dasgupta A *et al*[13], Coker *et al*[15], Gajalakshmi and Shanta[16], and Dahiya N *et al*[17]. All of them observed that the incidence of cervical cancer is higher among the patients living in the rural areas. Since the recognized risk factors like illiteracy, low socioeconomic status early menarche, poor genital hygiene is widely prevalent in the rural population.[9] Various studies have shown a strong inverse association observed between socioeconomic indicators and the risk of invasive cervical cancer. Women categorized in a low social class were exposed, in a meta-analysis of international data, twice to the risk of cervical cancer compared to women defined as belonging to a high social class.[18] In our study women high risk for cervical carcinoma were mainly Hindu. Muslim women were only 20%. This was in accordance with the study done by Kaur P *et al*[10], and Gajalakshmi, and Shanta[16] that circumcision as practiced by Muslim could account for the lower incidence of cervical carcinoma as compared to Hindu community.

In our study 13.6% women were below 18 years of age at the time of first coitus. 56.4% women were between 18 to 25 years at time of first coitus. In present study 52.6% women were between 18 – 25 years of age at the time of marriage. Our findings were consistent with that observed by Kaur P *et al*[10] and Misra *et al*. [11] 37.7% women were below 20 years of age at the time of first child birth. This was in accordance with the study conducted by Kaur P *et al*[10] and Varghese PR[19] that young age at first pregnancy is also a risk factor for Ca Cx. Mean age at the time of first child birth was 23.1 ± 5.8 years. This was consistent with the results observed by Neha EL *et al*[9] Early sexual intercourse that results in more frequent and prolonged sexual activity especially in

the young cervical tissue is much susceptible to oncogenic change especially by HPV.[20]

Majority of the women in our study were multiparous (57.7%). Our results were consistent with that observed by Neha EL *et al*[9], Kour P *et al*[10], and Munoz *et al*. [21] All of them recorded a strong correlation between risk of cervical carcinoma with number of births. The increased levels of estrogen and progesterone for more prolonged periods during pregnancy in multiparous women may be reason for increased risk of carcinoma cervix in multiparous women.[8] High parity has long been suspected of being associated with an increased risk of cervical cancer.[16] Trauma to the cervix during delivery could be the possible explanations but alternative mechanisms that warrant exploration include increased susceptibility to infection through immunosuppression, hormonal influences and dietary deficiencies.[9]

Women high risk for cervical cancer presents with a wide spectrum of symptoms, irregular vaginal bleed, foul-smelling discharge per vagina, lower abdominal pain. In our study 59.7% women presented with vaginal bleeding which was in line with that reported by y Kaverappa *et al*[22] and Kumar *et al*. [23] In a study done by Neha EL *et al*[9], most common presentation was post-menopausal bleeding, followed by discharge per vaginum and post coital bleeding. Similarly in a study from Nigeria, Abnormal vaginal bleeding, offensive vaginal discharge and post coital bleeding were the most common symptoms.[24] Unhealthy cervix was seen in 40.3% women on per speculam examination. Similar results were concluded by Dasgupta A *et al*[13], Malathi P *et al*[25] and Ghosh P *et al*[26].

CONCLUSION

There are very limited studies conducted on the Indian population describing the sociodemographic and clinical profile of women high risk for cancer cervix. women below 45 years, Hindu, illiterate, belonging to lower socio-economic status and from rural area are more at risk for cervical cancer. Early age at marriage, coitus and multiparous women are also at risk for cervical cancer. When a woman comes in Gynae OPD cervix should be visualized so that women who are at risk of cancer cervix can be followed regularly.

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Table 1: Socio-demographic profile of the women high risk for cancer cervix

Socio-demographic factors	Number	Percentage
Age		
Below 45	116	75.3
45 and above	38	24.7
Mean±SD	35.3±9.3	
Residence		
Urban	64	41.5
Rural	80	51.9
Slum	10	6.6
Religion		
Hindu	121	78.6
Muslim	30	20
Christian	3	1.4
Socio-economic Class		
Lower	104	67.6
Middle	40	25.9
Upper	10	6.5
Literacy Status		
Illiterate	98	63.7
Literate	56	36.3

Table 2: Reproductive profile of the women high risk for cancer cervix

Reproductive profile	Number	Percentage
Age at First Coitus		
< 18	21	13.6
18 - 25	87	56.4
> 25	46	29.8
Mean±SD	22.7±3.8	
Age of marriage		
<18	21	13.6
18 - 25	81	52.6
>25	52	33.8
Mean±SD	22.8±3.8	
Age of first child birth		
<20	58	37.7
20-30	78	50.6
>30	18	11.7
Mean±SD	23.1±5.8	
Number of child birth		
0	9	5.8
1	56	36.3
2	70	45.4
≥3	19	12.3
Contraceptive use		
No contraception	78	50.6
IUCD	13	8.4
OCP	8	5.2
Condoms	15	9.7
tubectomy	40	25.9

Table 3: Clinical profile of the women high risk for cancer cervix

Signs and symptoms	Numbers	Percentage
Irregular vaginal bleeding	41	26.6
Post-menopausal bleeding	28	18.2
Vaginal discharge	49	31.8
Unhealthy cervix	62	40.3
Hypertrophied cervix	35	22.7
Cervical erosion	48	31.2