

SOCIO DEMOGRAPHIC PROFILE AND RISK FACTORS OF WOMEN PRESENTING WITH CERVICAL CANCER IN A TERTIARY CARE CENTER IN BANGLADESH

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Abstract

Background : Bangladesh, a densely populated country of South-East Asia shows some of the highest rates of cervical cancer worldwide, and about 70% of the population is living in rural villages with a per capita GDP of 1211 US\$ (Year 2015) having no population based cancer registry. The aim of this study was to assess the socio demographic status and risk factors related to cervical cancer in a tertiary care center in Bangladesh. **Material and methods :** A cross-sectional study was conducted using a self administered questionnaire between January 1, 2016 and June 30, 2016 on 68 patients who were admitted in Chittagong Medical College Hospital for confirmation of diagnosis and treatment. **Results :** Women of increasing age 40-50 (41.18%), having many pregnancies >4 (38.23%) and no education 63 (92.65%) with history of active or passive smoking 56 (82.36%) were found to be at increased risk of cervical cancer. **Conclusion :** It is important to recognize the socio demographic and risk factors associated with cervical cancer while making public health policies and implementation of cervical cancer control programmes.

Key words

Cervical cancer; Sociodemographic profile; Risk factors.

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Introduction

World wide cervical cancer is an important public health problem. Among women presenting with carcinoma, cervical cancer is the second most common¹. It is also the second cause of cancer related mortality in women world wide². Each year approximately 493000 new cases of cancer cervix are diagnosed and approximately 274000 women dies from cancer cervix per year¹. In less developed countries, cervical cancer is more frequent¹. Approximately 80% of cancer cervix occur in these countries. South East Asian region contributes 35% of global burden of the diseases^{3,4}. Cancer mortality rate is also very high in this region as because late stage at diagnosis, and suboptimal therapeutic facilities⁴. Another important cause behind the higher cervical cancer incidence in this region in comparison to developed countries is the lack of effective screening programme to detect precancerous condition and treating them before progression to cancer⁵. In Bangladesh about 70% of hospital cases of gynaecological cancer are cervical cancer⁵. Cancer cervix incidence in Bangladesh is 11,956 per year⁴. Cancer cervix mortality in Bangladesh is 6582 death per year⁴. Cervical cancer is a multi factorial disease³. Though HPV (Human Papilloma Virus) is the main causative agent for development of cancer cervix but cervical infection with HPV is extremely common compared to the relatively rare development of cancer. So additional aetiological factors such as parity, smoking, Oral Contraceptive Pill (OCP) uses, socioeconomic condition should be considered. Therefore socio demographic risk factor assessment is necessary to assess the determinants of carcinoma cervix in low resource settings.

Materials and methods

A cross sectional study was conducted among the women diagnosed with cervical cancer in Department of Obstetrics and Gynecology Chittagong Medical College Hospital, in Bangladesh. All suspected & diagnosed cancer

cases of all hospitals of Chittagong division are referred to this tertiary center for confirmation of diagnosis and treatment. The study was conducted from January 2016 to June 2016. The population of the study was 68 women aged between 30 yrs to 70 yrs. The study variables were- age, residence area, occupation of the patient & spouse, smoking habit of both partner, marital status, menstrual history, monthly income, personal habit, use of oral contraceptive pills, screening status, duration of illness, clinical stage of the diseases at admission & histopathological type of tumor. Tumor was classified using the Federation of International of Gynecologists and Obstetricians (FIGO) classification as

Stage 1 : Tumor confined to the cervix.

Stage 2 : Tumor extending beyond the cervix but not into the pelvic wall, involving the upper 2/3 of vagina.

Stage 3 : Tumor extending up to lateral pelvic wall & involving lower 1/3 of vagina, but not involving adjacent organs.

Stage 4 : Tumor extending beyond pelvis, involving either adjacent or distant organs.

Staging was done by examination under anaesthesia. Questionnaire containing both open ended and closed type questions were designed based on the study objectives, taking help from the previous literature and studies available on the topic. Face to face interview was taken. Percentage were calculated for all the variables.

Results

Table I : Sociodemographic characteristics of the respondents (n=68)

Sociodemographic characteristics	Number	Percentage (%)
Age (Yrs)		
30-40	11	16.18
40-50	28	41.18
50-60	15	22.06
60-70	14	20.58
Geographical Area		
Urban	20	29.41
Rural	40	58.82
Hill tract	8	11.76

Sociodemographic characteristics	Number	Percentage (%)
Occupation		
Housewife	63	92.65
Garments worker	4	5.88
Day labourer	1	1.47
Education level		
Illiterate	63	92.65
Primary-junior school	3	4.41
S.S.C	2	2.94
Family income (in taka/month)		
<15000	56	77.93
15000-30000	9	13.23
>30000	3	4.41
Marital status		
Married	48	70.59
Widow	17	25
Separated	3	4.41
parity		
Nullipara	2	2.94
2-4	20	29.41
4-6	26	38.23
>6	20	29.41

Table II : Co factors associated with carcinoma cervix

Co factors	Number	Percentage (%)
Smoking		
Husband		
Smoker	56	82.36
Non smoker	12	17.64
Wife		
Smoker	4	5.88
Non smoker	64	94.11
Consumption of carcinogenic food		
Betel nut with leaf	41	61.29
Jorda	11	16.17
Sadapata	6	8.82
Oral contraceptive pill user	15	22.05
Screening for carcinoma cervix		
Yes	0	0
No	68	100

Table III : Regarding presentation of the diseases

Duration of illness	Number	Percentage (%)
<1 Yr	44	64.7
>1 Yr	22	32.34
Diseases stage at diagnosis		
Operable	23	33.82
Inoperable	45	66.17
Histopathological classification		
Squamous cell carcinoma	61	89.70
Adenocarcinoma	7	10.29

The study subjects were between age group of 30-70 yrs. Regarding age 57.36% of them were <50yrs. More than half of them living in rural areas. 92.65% of the patients were housewife. Maximum number of the patients had family income of <15000 taka/month & majority of the patients, 92.65% were illiterate, 82.5% were passive smoker whereas only 4 (5.88%) of the patient were active smoker. All the study subjects were married and among them 17 (25%) of the patients were widow and 3(4.41%) were separated from husband.

35(51.47%) of the patient were postmenopausal and 38.23% were multipara. Among 68 patient 60.29% were betel leaf with betel nut user & 22.05% were OCP user. Majority of them 66.17% presented in advanced stage of the diseases & 89.70% were diagnosed as squamous cell carcinoma on histopathology. None of the patient had previous history of screening for cervical cancer.

Discussion

The present study is a descriptive research conducted with the purpose of determining cervical cancer risk factors.

Among the study subjects 89.70% were squamous cell carcinoma and 10.29 % were adenocarcinoma, supporting the result of other literature⁶. The majority of the patients in our study was in advanced stage of the disease (66.17%) which resemble with other study^{7, 9}. In our study peak incidence of cervical cancer observed in 40-50 years age group but in other studies observed peak incidence is in age group of more than 50 years^{2,8, 9}.

Important factors for presentation at advanced stage is poor knowledge about the disease and lack of screening among general population^{7,11}.

In the present study, we tried to identify the risk factors for cervical cancer among the patients.

Most of the patients were from rural area in this study (58.82%). This finding is consistent with earlier reports^{8,9}. This may be due to women in rural areas are deprived of proper health care services⁹. But in another study conducted in Beijing showed little difference in rates of cervical cancer between urban and rural regions².

In our study, educational status of most patients were below primary (92.64%) supporting results of previous studies^{2,10}.

Our study have demonstrated that women from low socioeconomic status (Defined by family income, level of education) are at relatively higher risk of cancer cervix which is consistent with other study^{3,9}. This may be due to lack of awareness among them about cervical cancer¹¹.

Supporting the literature, multiparity has been identified as a predominant factor for cervical cancer in our study (67.64%)^{1,8, 14}.

Only 22.05 % patients in our study were OCP user. It is suggested that long term use of OCP causes two fold excess risk of cervical cancer. However, such an excess risk, levels off after stopping use^{1,12}.

In our study, 82.35 % of patients spouse were smoker. Smoking appears to be a risk factor, with an increased risk of around 1.5 % for current smoker^{1,2,3,6,13}.

This study showed that, 76.46% patients were either betel nut or tobacco leaf user which is a influencing factor^{1,3}.

All the patient in our study had vaginal delivery and none of them had ever screened for cervical cancer which is consistent with other study^{3,14}.

An elevated risk for late stage diagnosis among widowed or divorced compared to married women was observed. This is due to lack of financial resource and or absence of family or social support^{3,15}.

There are some limitations of the study. First, The study period was of short duration with a small sample size. Second, the authors did not receive information on many other lifestyle factors that may potentially be associated with cervical cancer. Third, the tumour stages were classified into broad major stages without substaging. Fourth, the cross sectional nature of this study allows the possibility for confounding so it is difficult to reach any causality. This may hence hinder the generalizability of our findings.

Conclusion

The changing sociodemographic profile & initiation of different screening strategies results in decline in incidence & mortality of cervical carcinoma worldwide. But carcinoma cervix is still the leading cancer among the women of South East Asian region. So it continues to be an

important public health problem in Bangladesh. Women who are elderly, living in rural areas, with low income, less educated, who are active or passive smoker, multipara are prone to develop cervical carcinoma. So it is important to consider the sociodemographic factors associated with cervical cancer while making public health policies & implementation of carcinoma cervix control programme.

Disclosure

All the authors declared no competing interest.

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