J. Rangpur Med. Col, 2019; 4(1):55-56

Original Article

Assessment of Selected Risk Factors of Ca-cervix among Bangladeshi Women

Colonel G M Monirul Islam[1]

Abstract:
Context: Among the cancers, Ca-cervix is at present the most common for the poor female population of Bangladesh. This descriptive cross-sectional study was conducted with an aim to find out the risk factors of the patients suffering from carcinoma cervix. **Methods:** The study was done at the outpatient department of National Institute of Cancer research & Hospital, Mohakhali, Dhaka with the collaboration of Department of Epidemiology of the same institute. Non-probability purposive sampling method was adopted. Data was collected from 84 histologically diagnosed cases of cervical cancer patients who came for treatment from different areas of the country. A common structured questionnaire was used in respect of each respondent to collect data. **Results:** The mean ± SD of age of the respondents was 46.68 ± 8.71 years. Out of 84 respondents only 11(3.09%) gave history of smoking. Among the respondents 86.9% got married once and 13.1% married twice. 11.9% had history of sexual multipartnership and 13.1% had history of sexually transmitted infection. Out of 84 respondents 27.4% had history of using oral contraceptive pill. **Conclusions:** It was a hospital based study on cancer cervix and duration of study was about one month. Further in depth studies with larger sample size is required to be carried out to find out further details of the risk factors of Ca-cervix patients.

Indexing words: Risk factors, Ca-cervix

Introduction:
Worldwide, cervical cancer is the fifth most deadly cancer in women. It affects about 1 per 123 women per year and kills about 9 per 100,000 per year[1]. In the United States, it is only the 8th most common cancer of women. In 1998, about 12,800 women were diagnosed in the US and about 4,800 died. Among gynecological cancers it ranks behind endometrial cancer and ovarian cancer. The incidence and mortality in the US are about half those for the rest of the world, which is due in part to the success of screening with the Pap smear[2]. In Great Britain, the incidence is 8.8/100,000 per year (2001), similar to the rest of Northern Europe, and mortality is 2.8/100,000 per year (2003) (Cancer Research UK Cervical cancer statistics for the UK). With a 42% reduction from 1988-1997 the NHS implemented screening programme has been highly successful, screening the highest risk age group (25-49 years) every 3 years, and those ages 50-64 every 5 years. One study suggests that prostaglandin in semen may fuel the growth of cervical and uterine tumors and that affected women may benefit from the use of condoms[3]. Studies suggested that cervical cancer was common in female sex workers. It was rare in nuns, except for those who had been sexually active before entering the convent. It was more common in the second wives of men whose first wives had died from cervical cancer[4].

The cervix is the commonest site for female genital cancer in the 3rd world countries like Bangladesh. Statistics vary considerably from country to country and from race to race. So in African and Asian woman living in poor conditions the incidence and relative mortality rate of carcinoma of the cervix may be four to five times higher than those seen in developed countries. It can occur at all ages even at birth. It has two peaks, one at about 35 yrs and another at about 50-55 yrs. It is 20 times more common amongst the wives of unskilled laborers. The risk factors of cervical cancer are often found in the socio-demographic characteristics of the patients. Illiteracy, ignorance, unawareness, poor sexual/genital hygiene, sexual/child bearing practice etc have got link with Ca-cervix in a developing country like Bangladesh. The

1. Assistant Director of Medical Services (Army), Army Head quarters, Medical Directorate, Dhaka Cantonment, Dhaka

possible operating factors are low standard of cleanliness (including penile hygiene), coitus or marriage at an early age, frequent of sexual intercourse, early bearing of 1st child, multiple sexual partners and promiscuity of both partners[5].

Among the others, venereal disease, Herpes & human papilloma virus infection, cigarette smoking are also associated with higher incidence of cervical cancer. Using birth control pills for a long time (5 or more years) may increase the risk of cervical cancer among women with HPV infection. Diethylstilbestrol (DES) may increase the risk of a rare form of cervical cancer[1]. These factors may act together to increase the risk even more.

Most of the developed countries of the World have reduced the incidence and prevalence of cancer cervix but in Bangladesh the incidence and prevalence of cancer cervix is still too high. Analyzing the current situation and its future impact, it can be said the figure of cancer cervix are likely to be increased in the days to come if necessary preventive measures are not taken. Bangladesh though a developing country in the world and over whelmed with communicable diseases, as well as non communicable diseases and cancer is one of them. Therefore, a study on cancer cervix is considered necessary to explore the risk factors.

The study would significantly contribute in the detection of magnitude of the problem and prescribe preventive interventions to control the initiation and progression of carcinoma cervix among the poor as well as rich female population of Bangladesh. Furthermore, the study would help to identify the social and demographic risk factors that have link with carcinoma cervix so that some intervention strategies could be developed which would be appreciated by the concern authority to frame up guideline for reduction of carcinoma cervix patients to an appreciable level. Measures to change modifiable variables to remain free from disease or prolonged carcinoma cervix free state of its sufferers would contribute to enhance quality of life of the female population of Bangladesh. Bangladesh has been experiencing an epidemiological transition from communicable diseases to non-communicable diseases. The Health Nutrition, Population Sector Programme (HNPSP) has identified three non-communicable diseases cancer, cardiovascular diseases and diabetes mellitus-as major public health problems in Bangladesh[6]. So, the present study to assess the risk factors of ca-cervix would help the women to avoid the risk factors.

Methods:

This was a descriptive cross sectional study conducted at National Institute of Cancer research & Hospital, Mohakhali, Dhaka, from 01 January to 30th June 2008. All the diagnosed patients of carcinoma cervix treated at NICRH, who were willing to participate to the study, were included in the study by purposive sampling technique and were interviewed. After getting the approval of the research proposal from the protocol acceptance committee, formal permission was obtained from administrative authority of NICRH and the authority welcomed the researcher to carry out such research. The study required some personal information from respondents so before collection of data informed consent was taken from respondents. A pre-tested data collection sheet was prepared.

After explaining the purpose of the study to respondents and obtaining verbal consent, the researcher interviewed all of them face to face by asking questions. Respondents were encouraged to tell their problems in their own language specially in Bengali language. Respondents were given full assurance on some ethical points of view that under no circumstances, any findings of the interview will be disclosed to any unauthorized persons or to the service authority. They were asked for some risk factors of Ca-cervix like habits of smoking, H/O multiple marriages, sexual mutipartnership, use of oral contraceptives and previous STDs. Each questionnaire was minutely checked, verified and corrected on the spot following the interview. After completion of data collection, the data were consolidated, processed and edited to reduce errors. The data were entered into the computer and analyzed with the help of SPSS windows program version 12.0 by the researcher himself.

Results:

This was a descriptive cross-sectional study conducted at National Institute of Cancer research and Hospital, Mohakhali, Dhaka. The main objective of the study was to assess the

risk factors of the carcinoma cervix patients those who are reporting to OPD at NICRH.
Among the respondents 11 (13.09%) were smoker and 73 (86.90%) were non-smoker (Table 1).

Table 1: Distribution of respondents by smoking habit (n=84)

Habit	No of patients	Percentage
Smoker	11	13.09
Non-smoker	73	86.90
Total	**84**	**100.0**

Among the study subjects 73 (86.9%) were married once in their life time and rest 11 (13.1%) were married twice in their life (Table 2).

Table 2: Distribution of respondents by no of marriage (n=84)

No of marriage	No of cases	Percentage
One	73	86.9
Two	11	13.1
Total	**84**	**100.0**

Among the respondents 10 (11.9%) had a H/O sexual multipartnership and 74 (88.1%) had no such history (Table 3).

Table 3: Distribution of respondents by sexual multipartnership (n=84)

Sexual multipartnership	No of cases	Percentage
YES	10	11.9
NO	74	88.1
Total	**84**	**100.0**

Among the respondents 23 (27.4%) had H/O using OCP on regular and irregular basis and 61 (72.6%) did not use any OCP in their life time. Among the respondents mean year of use of OCP were 7.26 yrs with SD±3.58 yrs. Duration of use of OCP were from 1-15 yrs. (Table 4).

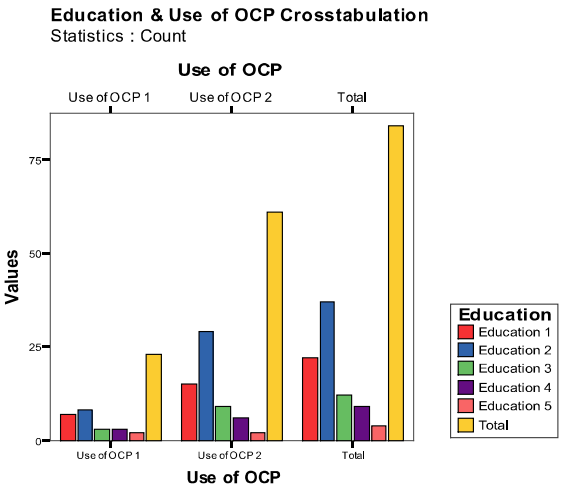
Table 4: Use of Oral contraceptive (OCP) by the Respondents (n=84)

Use of OCP	No of cases	Percentage
Yes	23	27.4
No	61	72.6
Total	**84**	**100.0**

Among the respondents 11 (13.1%) had previous H/O STD and most of them suffered from either syphilis or gonococci infection but none of them had any H/O suffering from HPV infection. Rest 73 (86.9%) had no H/O any STD (Table 5).

Table 5: Distribution of H/O previous STDs by the respondents (n=84)

H/O STDs	No of cases	Percentage
Yes	11	13.1
No	73	86.9
Total	**84**	**100.0**



Discussions:

Bangladesh is poverty-ridden country. The vast majority of the people are still ill-fed, ill-clothed, ill-housed, Ill-educated and ill-cared in health services. The percentage of absolute poor is one of the highest in the world. Ppoor and unhygienic condition has a direct relation with carcinoma cervix. All sexually active women are at risk for the development of cervical cancer. The risk seems to be increased with smoking and promiscuity of the woman or her male partner. This is the standard text book explanation for an increased risk. But, in my experience, it is not a likely explanation for the patients that have been treated. It is not increased by the use of birth control pills, family history or the development of genital warts. Almost all cases occur in women who have not had regular screening with Pap tests. This is one cancer that can be prevented, in most cases, by screening for the premalignant changes[7].

The result of the study may not have external validity as because the study population was selected from those who are willing to get treatment in this Hospital and economically viable to come to Dhaka from different corner of our country. It was not a random selection from the population of our country.

The present study depicted that out of 84 Ca-cervix patients who were taken as study subjects 11 (13.09%) were smoker and remaining 73 (86.9%) were non-smoker (Table 1). A similar study conducted in 2005 at Cancer Hospital revealed that 5.5% female cancer patients (all sites) had a history of smoking[8]. From the present study it is assumed that among the female population habit of smoking is increasing. Urbanization and change of social phenomenon may be a factor of increase smoking among the female population. Among the 11 smoker patients mean duration of smoking were 9.27 yrs with SD±4.79 yrs and minimum duration was 3 yrs and maximum was 20 yrs.

Among the respondents 73(86.9%) woman were married once in their lifetime and 11(13.1%) woman had a history of being married twice (Table 2).This figure may be taken as normal in our social life. poverty, illiteracy, early marriage and different gynecological problem may be associated with divorce.

In the study it was found that maximum respondents 88.1% (74) did not have any history of sexual multipartnership, only 11.9% (10) given history of multiple sex partner (Table 3). Bangladesh is a moderate Muslim country, people are very conservative here and that is why prevalence of HIV/AIDS is still very low. But in the recent past year modern amusement like mobile phone, satellite TV, computerization etc making out society fast and sexual crime and sexual polygamy is increasing.

Among the respondents 27.4% (23) woman regularly or irregularly used OCPs to control fertility. Rest 72.6% (66) did not used any OCP in their lifetime. Duration was 1-15 years among the OCP users and mean duration was 7.26 with SD±3.58 yrs (Table 4). Out of 84 patients 13.1% (11) had H/O previous STD infection (Table 5). Most of them had given history of either syphilis or gonococci infection. None had any history of HPV infection which is now considered the most precipitating factor for Ca-cervix.

The widespread introduction of the Papanicolaou test, or pap smear for cervical cancer screening has been credited with dramatically reducing the incidence and mortality of cervical cancer in developed countries. The pap smear suggests the presence of cervical intraepithelial neoplasia (premalignant changes in the cervix) before a cancer has developed, allowing for further workup. Recommendations for how often a Pap smear should be done vary from once a year to once every five years.

The HPV test is a newer technique for cervical cancer triage which detects the presence of human papillomavirus infection in the cervix. It is more sensitive than the pap smear (less likely to produce false negative results), but less specific (more likely to produce false positive results) and its role in routine screening is still evolving. Since more than 99% of invasive cervical cancers worldwide contain HPV, some researchers recommend that HPV testing be done together with routine cervical screening. But, given the prevalence of HPV (around 80% infection history among the sexually active population) others suggest that routine HPV testing would cause undue alarm to carriers.

HPV testing can reduce the incidence of grade 2 or 3 cervical intraepithelial neoplasia or cervical cancer detected by subsequent screening tests among women 32-38 years old according to a randomized controlled trial. The relative risk reduction was 41.3%. For patients at similar risk to those in this study (63.0% had CIN 2-3 or cancer), this leads to an absolute risk reduction of 26%.

Yasmeen conducted a case control study among 150 cervical cancer patients and 300 age-matched controls at the community between July 2004 to June 2005 at NICRH, Mohakhali, Dhaka. The socio-demographic characteristics revealed that most of the cases were in the age range of 36-45 yrs with a mean of 46.32 years and SD±7.47 years. Majority of cases were Muslims (85.3%), housewives (85.3%) and illiterate 60%.Statistically significant relationship of cervical cancer was found in respect to religion, occupation, educational status and monthly family income. Most of the cases were married (79.3%), majority (94.5%) of cases used OCP and ±years for most of the cases (93.3%). Age of 1st sexual contact was between 10-15 years and

1st child bearing age was between 13-18 years. Regarding the number of children 59.7% of the cases had 5-9 children[9].

Conclusions:

Ca cervix is the most common cancer among the female in Bangladesh. The disease has a long latent period and early diagnosis can cause cure rate almost 100%.VIA is a very low resources important method for early detection of Ca-cervix and can by applied for high risk group for detection of cervical cancer and safe the life of poor woman of this country.

References:

1. Lowy DR, Schiller JT (2006). Prophylactic human papillomavirus vaccines. J. Clin. Invest. 116 (5): 1167–73.
2. Prevention of cervical cancer,Wikipedia,free encyclopedia. (Cervical cancer - Wikipedia, the free encyclopedia.htm)
3. Ahmed ZU, editor. Situation of cancer in Bangladesh. Asiatic Society of Bangladesh, 2004. Cancer: Banglapedia. internet: (http:// banglapedia.search.com.bd/HT/C_0033.htm.
4. Semen 'may fuel cervical cancer'", BBC, 2006-08-31. Retrieved on 2007-12-02. "Semen can worsen cervical cancer", Medical Research Council (UK). Retrived on 2007-12-02.
5. World Health organization (February, 2006).Fact Sheet No 297: Cancer. Retrieved on 2007-12-02.
6. World Health Organisation 2005. Country health profile. The impact of cancer in Bangladesh: WHO Global InfoBase on cancer (http://www.whoban.org).
7. Walboomers JM, Jacobs MV, Manos MM, Bosch FX, Kummer JA, Shah KV, Snijders PJ, Peto J, Meijer CJ, Muñoz N. J. Pathol 1999; 189 (1):12.
8. Nader, Carol. "Expert says circumcision makes sex safer", The Age, Fairfax Media, 2005-02-16. Retrieved on 2007-12-02.
9. Yesmeen S. Risk Assessment of Oral Contraceptive Pills on Cervical Cancer (Thesis). Dhaka. NIPSOM; 2003-05: 47-88.