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CERVICAL CANCER: DEMOGRAPHIC PATTERN, CLINICAL PRESENTATION AND ASSOCIATED RISK FACTORS: A 5 YEARS RETROSPECTIVE STUDY IN TRIPURA, NORTH-EAST INDIA.

Clinical Research

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ABSTRACT

Purpose: To study demographic pattern, clinical presentation and risk factors in cervical cancer.

Materials and method: A retrospective study was conducted at regional cancer centre, Agartala. Medical records of 765 patients with cervical carcinoma who were registered from January 2012 to December 2016 reviewed and data analyzed.

Observation and results: Among the 765 patients, 48.7% cases were at the age group of between 40-59 years. Abnormal vaginal bleeding was the most common complain and found in 74.3% cases. Stage-III (FIGO-International Federation of Gynecology and Obstetrics) cervical cancer was the most common and presented in 40.5% cases. The most common histopathology was squamous cell carcinoma followed by adenocarcinoma with 94.3% and 5.3% respectively. History of chewing paan (betel leaf with quid and zarda), smoking and consumption of alcohol was noted in 52.1%, 39.8% and 7.7% cases respectively. Marriage below 20 years of age was observed in 51.1% of patients and multy parity in 69.1% of patients. Majority of patients belonged to rural areas and were of low socio-economic strata with 80.1% and 50.0% respectively.

Conclusion: In this study majority of patients were present in advanced stages of disease. Abnormal vaginal bleeding was the most common presenting symptom. Rural population and low income groups affected more by the disease.

KEYWORDS

Cervical cancer, demographic pattern, clinical presentation, risk factors.

Introduction:

Cervical cancer is one of the leading cancers in developing countries. It accounts around 12% of all cancers and is the fourth most common cancer in women worldwide[1]. The highest incidence of cervical cancer is found in Eastern and Middle African women[2,3,4].

The incidence of cervical cancer in India is around 13,000 and 67,000 persons' die of this disease every year[4]. In North-East (NE) India, the highest incidence is found in Mizoram, a neibouring state of Tripura and Aizawl district is mostly affected area by the disease with an age adjusted rate of 24.3[5].

The causes of cervical cancer are multifactorial. Female sexual and reproductive behaviors, socio-economic factors, infection with human papilloma viruses etc can contribute to the development of this disease. Uses of tobacco and tobacco products may also contribute to the development of cervical cancer[6,7,8,9,10,11].

Cervical cancer patients can expressed with different symptoms. Most common presenting symptoms are abnormal vaginal bleeding, white vaginal discharge, lower abdominal pain and post coital bleeding[12,13].

Tripura is a part of North-East (NE) India where peoples of this state having different life styles and food habits among different ethnic groups. People in this part of India are fond of chewing betel quid, zarda, areca nut etc. Females have the tradition of using betel nut and leaf along with zarda while at home or going outside. There is an increase incidence of consumption of alcohol, observed among women folks. These habits of peoples are needed to be evaluated and documented in detail in search of relative risks for the causative factors towards the development of cervical cancer here.

The purpose of the present study is to conduct detailed evaluation of demographic pattern, clinical presentation and associated risks factors of cervical cancer in Tripura, a North-East Indian state.

Materials and method:

A retrospective cross sectional study was undertaken at regional cancer centre, Agartala. Record of 765 patients with histopathological confirmed cervical cancer who were recorded during the period from January 2012 to December 2016 was reviewed.

Data including age, tumor stage, marital status, age at marriage, educational status, socio-economic status (modified BG Prasad's classification), parities, medical records, personal habits, and physical examination findings were collected.

Patients who had incomplete information and or with previous history of hysterectomy were not included for the study. All information of about the patient's was kept confidential.

The data obtained were analyzed and results were presented in range, median, frequency and percentage.

Observation and results:

Maximum number of patients belonged to the age group of 40-59 years (Table-5). The most common presenting symptom was abnormal vaginal bleeding, 74.3% followed by white vaginal discharge, 57.5%, pain in abdomen, 49.3% and post coital bleeding, 16.3%(Figur-1).

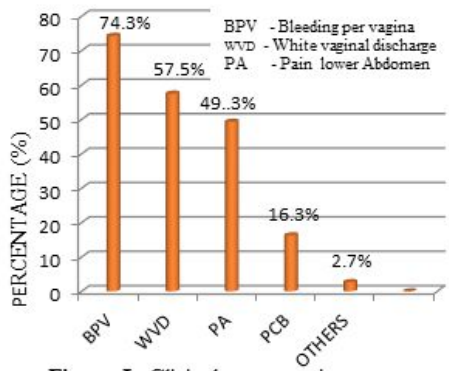

Figure-I: Clinical presentation

Stage-III cervical carcinoma was the most common stage with 40.5% followed by stage-II, 36.0%, and stage-IV, 10.0%(Table-1). Histopathological, squamous cell carcinoma was the most common cell type and was observed in 94.3% of cases followed by adenocarcinoma, 5.3% (table -2).

Table-1: Tumor stages.

Sl.No.	Stage	Number	Percent
1.	IA	11	1.4%
2.	IB	99	12.9%
3.	IIA	105	13.7%
4.	IIB	171	22.3%
5.	IIIA	61	7.9%

6.	IIIB	249	32.5%
7.	IVA	31	4.0%
8.	IVB	38	4.9%

Table-2: Tumor histology.

Type	Number	Percent
Squamous cell carcinoma	722	94.3%
Adenocarcinoma	41	5.3%
Others	2	0.2%

Majority of patients were from rural areas, 80.1% and belonged to class-III socio-economic group, 50.0 %(3).

Table-3: Socioeconomic status and places of patients

Class	Number	Percent
I	30	3.9%
II	46	6.0%
III	383	50.0%
IV	229	29.9%
V	77	10.0%
Place		
Rural	613	80.1%
Urban	152	19.8%

History of smoking for more than 20 years was found in 39.8% cases. Patients taking paan (betel leaf, quid, zarda), consumption of alcohol was observed in 52.1% and 7.7% cases respectively (Table-4).

Table-4: Risk behaviors

Risk behavior	Number	Percent
Paan chewing	399	52.1%
Smoking >20 years	305	39.8%
Alcohol	59	7.7%

Patients' marriage below 20 years of age was found in 51.5% of patients. In this study 69.1% case of cervical cancer patients had more than three children.

Table-5: Age, education, marital status and parity of patients (n=765)

Ages (years)	**Number**	**Percent**
20-39	120	15.6%
40-59	373	48.7%
60-79	260	33.9%
>80	12	1.5%
Education		
Illiterate	497	64.9%
Primary education	130	16.9%
Secondary education	77	10.0%
Above secondary education	61	7.9%
Marital status		
<20 years	395	51.5%
20-30 years	353	46.1%
>30 years	17	2.2%
Parity		
0	0	0%
1-2	236	30.8%
3-4	397	51.8%
Above 4	132	17.2%

Discussion:

Cervical carcinoma is more common in developing countries like ours. In the present study we observe that most of the patients were at the age group of 40 to 59 years. A similar finding was noted by the study Neha EL et al[14], where majority of patients were at the same age group.

Abnormal vaginal bleeding was the most common presenting symptom, 74.3% followed by white vaginal discharge, 57.5%, pain in abdomen, 49.3% and post coital bleeding, 16.3% in this study. The findings were similar to the study by Wadhwani R et al[15].

In the developed countries majority of patients are diagnosed at earlier stage. But here, in the present study we found most of the patients reported in advanced stages of disease. Majority of them had stage III disease and was found in 40.5% of cases followed by 36.0% in stage-II, 10.0% in stage-IV and 1.4% in stage-I. Similar to our findings were observed by other studies too[14, 16]. Squamous cell carcinoma was the predominant histology and found in 94.3% of cases, whereas adenocarcinoma was observed in 5.3% of cases. These findings were consistent with other studies in other parts of India[12,15].

Majority of patients were from rural areas with 80.1% and moreover, 50.0% of total patients belonged to low socio-economic status. The patients were mostly illiterate and constituted 64.9 % (Table-5). Illiteracy, poverty, rural areas has long been considered to be risk factors of cervical cancer where poor genital hygiene, lack of awareness of health care, access to the health facilities are less avilable[16, 17, 18, 19]. This trend of diagnosis may be reflecting to the lack of health awareness about the cervical cancer or facilities of disease screening in the far flung areas.

Taking of betel leaf with lime and zarda is a common habit of female folks in this state. We have observed in 52.1% of patients with history of chewing paan (betel quid, Zarda) in the present study. History of smoking, consumption of alcohol was also noted in 39.8% and 7.7% of patients respectively. Those risk factors that have been long time considered to the development of cervical cancer was also reported by other studies[14,20].

All patients in this study were married (cent percent). Patients married below 20 years of age was observed with 51.5% of cases and 69.1% of them had more than three Childs birth. The present findings were similar to the findings by study of Neha El et al[14], and Ushadevi G et al[21].

Conclusion:

Cervical cancer is one of the common cancers of women in less developed countries. This cancer is more common in rural, lower socio - economic class and illiterate women. Therefore, there is opportunity of awareness of about the disease as a whole. Many of the risk factors of cervical cancer are modifiable. Early detection may improve the treatment outcome and should be encouraged.

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Conflict of interest: The authors affirm no conflict of interest in this study.

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