



CANCER CERVIX EPIDEMIOLOGY, DEMOGRAPHY AND TREATMENT BURDEN: A RETROSPECTIVE ANALYSIS FROM TERTIARY CENTRE AT PRAYAGRAJ

Dr. Kamayani Yadav*

Moti Lal Nehru Medical College and Hospital, Prayagraj, Uttar Pradesh, India. *Corresponding Author

Dr. Vandana Ojha

Moti Lal Nehru Medical College and Hospital, Prayagraj, Uttar Pradesh, India.

Dr. Amrita Chaurasia

Moti Lal Nehru Medical College and Hospital, Prayagraj, Uttar Pradesh, India.

ABSTRACT

Aim: To study the socio-demographic, clinical profile and treatment burden of cervical cancer patients visiting a tertiary care hospital.

Methods: Medical records of 150 cervical cancer patients in 1 year period (September 2018 to August 2019) visiting our centre were retrospectively analysed.

Results: Median age cancer cervix in our study was 54 yrs. Approx. 54 % patients were illiterate, 75% were married and 86% were homemakers. Para five constituted around 54%. About 97.33 % patients did not receive HPV vaccination and 77.3% did not follow any contraception. Discharge per vagina (48%) and post coital bleed (31.33%) were major complaints. Early stage presentation was seen in 8.67% patients whereas stage II and II had 44.67 and 42.67% respectively. SCC (81.33%) formed major histological group. Around 45% either defaulted or interrupted their treatment.

Conclusion: Strengthening of integration of community workers and peripheral centres with tertiary centres, addressing disparity in resources by better infrastructure, education and awareness regarding HPV vaccination and Pap test and counselling team will help in decreasing burden of cancer cervix

Clinical significance: Early screening and diagnosis along with hospital and population based registry is demand of the hour to decrease cancer cervix burden.

KEYWORDS :

INTRODUCTION-

Cancer cervix is the second most common gynaecological malignancy in India (GLOBOCAN 2018)^[1] and constitutes a major public health burden in the developing countries. Worldwide, about half a million new cases are seen each year, with majority coming from the developing nations. In India, around 1 lac new cases of cancer cervix uteri occurred in 2018 with age specific incidence rate of 14.7 per 1,00,000(GLOBOCAN 2018). Median Age of diagnosis of cervical cancer is 49 years as per SEER data whereas peak age for its incidence is 55-59 years in India^[6].

Squamous cell carcinoma is more common histological type of cervical malignancy with adenocarcinoma being less common but both constitute around 90% and adenocarcinoma carries poor prognosis.

It is now well recognized that cervical cancer is more prevalent among women living in poor hygienic conditions, with low socioeconomic status and lack of education.

Human papillomavirus, especially 16 and 18 subtypes are associated with cervical malignancy in majority cases. These infections are self-limiting in major populations but some are unfortunate where it progresses from CIN to invasive carcinoma^[7]. The other risk factors includes early age at marriage, early age at first sexual intercourse, more number of sexual partners, high parity and smoking. However, information about patients profile and utilization of hospital services is scarce.

In India, huge section of the population is from below poverty line, who are neither aware nor have access to cervical cancer screening, diagnosis and treatment facilities.

Furthermore, despite cervical cancer being one among the leading cause of cancer mortality in India, accounting for 17% of all cancer deaths among women aged 30-69 years.

Hence, in the light of the above, the present study was planned to study the socio-demographic, clinical profile and treatment burden of cervical cancer patients visiting a tertiary care hospital in Prayagraj, UP.

METHODOLOGY-

Study design-

This was a retrospective study based on hospital records and prior informed consent of using patient's data was taken at Kamla Nehru Memorial Hospital, Prayagraj, UP, India.

Study Population-

Medical records of 150 cervical cancer patients in 1 year period were retrospectively analyzed. Patients who were registered before the study period and already on treatment were excluded from the study.

Data Collection-

The socio-demographic and clinical details obtained from the hospital records were age, residential address, religion, marital status, education, occupation status, treatment history, stage, tumour histology, performance status (score), presence of comorbid conditions, treatment procured and its outcome.

Statistics -

Data were analyzed using descriptive statistics.

RESULTS -

A total of 150 cervical cancer patients were included in this study. Table 1 portrays the age- group profile of cervical cancer patients.

More than half of the patients were illiterate (53.59%) and only 3.66% of the patients had completed college level education.

Nearly 75.42% of patients were married, 23.79% were widows, and only 1 (0.13%) patient reported herself unmarried.

Majority of the patients were homemakers (86.14%) and only 3.92% women reported to be employed in some job.

Table 1. Age group profile of cervical cancer patients

Age Groups	n=150/lyr	%
<30 years	02	1.33
30-40 years	18	12
41-50 years	31	20.66
51-60 years	29	19.33
61-70 years	15	10
>71 years	03	02

Majority of the patients were in the age group of 41-50 (20.66%),

followed by 51–60 (19.33%) and only one-fifth of the patients (13.33%) were below the age of 40. The median age of patients was found to be 54 years.

Table 3. Distribution of patients based on religion

Religion	N=150/1 yr	%
Hindu	120	80
Muslim	23	15.33
Others	07	4.67

Most of the patients were Hindus (80%), followed by Muslims (15.33%) and very few (4.67%) were from other communities.

Table 2. Parity Distribution of cancer patients

Parity	N=150/1 year	%
4	53	35.33
5	81	54
6	14	9.33
7	02	1.33

Most of the patients were Para 5 (54%), followed by Para 4 (35.33%), and (9.33%) were para 6 and (1.33%) were para 7.

Table 3. Distribution of patients with respect to HPV vaccination status

Immunity Status (HPV VACCINATION)	N=150/1 yr	%
Yes	04	2.67
No	146	97.33

2.67% of the enrolled patients received HPV vaccination whereas 97.33% didn't receive vaccination.

Table 4. Distribution of patients with respect to usage of Contraception

Contraception	N= 150/1yr	%
Yes	34	22.67
No	116	77.33

Most of the patients (77.33%) didn't use contraception and 22.67% used contraception.

Table 5. Distribution of patients with regards to age at which they get married

Age at marriage	N =150/1yr	%
<20 years	20	13.33
20-25 years	53	35.33
25-30 years	67	44.67
>30 years	10	6.67

Most of the patients married at the age group of 25-30 years (44.67%), followed by 20-25 years (35.33%), followed by < 20 years (13.33%), followed by > 30 years (6.67%).

Table 6. Distribution of patient's symptomatology

Symptoms	N=150/1yr	%
Abnormal menstrual bleeding	27	18
Discharge per vaginum	72	48
Post-coital bleeding	47	31.33
Uraemia	03	2
Fistula		
RVF	02	1.33
VVF	02	1.33

Maximum percentage of cancer cervix patients presents with the complaints of discharge per vaginum (48%), followed by postcoital bleeding (31.33%), followed by abnormal menstrual bleeding (18%), least no. of patients presented with the uraemia (2%) and fistula (1.33%).

Table 7. Stage wise distribution of cancer cervix patients

Stage	N=150/1 yr	%
IB	13	8.67
II A	28	18.67
II B	39	26
III A	27	18
III B	37	24.67
IV A	04	2.67
IV B (metastatic)	02	1.33

Stage-wise distribution of cervical cancer patients shows that a very small percentage of patients (8.67%) were diagnosed at early stage. Majority of the patients were diagnosed with Stage 2 (44.67%) or 3 (42.67%) disease

Table 9. Distribution of histopathology of cancer cervix patients

Histopathology	N=150/1yr	%
SCC with unknown differentiation	33	22
SCC well differentiated	30	20
SCC moderately differentiated	32	21.33
SCC poorly differentiated	27	18
Adenocarcinoma	27	18
Others	1	0.67

Nearly 81.33% of patients had squamous cell carcinoma. And 18% had adenocarcinoma and 0.67% others pathology.

Table 8. Residence distribution of cancer cervix patients

Residence	N=150/1 yr	%
Jagapur	03	2
Soraon	05	3.33
Phoolpur	15	10
Karchana	45	30
Meja	22	14.67
Koraon	37	24.67
Handia	15	10
Others	08	5.33

Maximum no. Of patients belong to Karchna and Koraon (55%) and minimum no. Of patients belong to Jagapur (2%).

Table 9. Distribution of patients who received definitive and postop treatment

	Single Visit	Incomplete Treatment		% Definitive	Complete Treatment (EBRT+B rachytherapy)
		Chemo therapy only	Incomplete EBRT		
Definitive	N=109	33(30.28%)	06	07	11.92 (57.79%)
Post-Op	N=41	11(27%)	04	05	21.95 (51.22%)

Patient defaulting in Definitive radiotherapy arm is around 42% and receiving complete treatment is 58% whereas in post op setting 49% patient defaulted and completing treatment were 51%.

DISCUSSION:

The main objective of conducting above analysis was to underline the burden of cervical malignancy in our institute and disease profile and treatment compliance and follow up.

Cervical malignancy was more common in age group 41-60 years which is in accordance to SEER data and data from National cancer registry programme^[6]. Most common stage group was II B and squamous cell carcinoma histopathology being more common than adenocarcinoma in our study which is in accordance to retrospective analysis conducted by Saibishkumar et.al^[5]. A study was conducted in southern India that emphasised that poor socioeconomic status is one of the major impact factor in delaying diagnosis and patient later present in advance stages at tertiary centre^[5]. Financial constraints plays an important role in compliance of treatment in cancer patients (Mandal and Roy)^[5]. Lack of education, poor transportation facilities, lack of treatment facilities and lack of family support etc. all contribute to poor compliance and treatment failure.

CONCLUSION

Along with multidisciplinary modality of cancer treatment, our management should be more integrated to combat current cancer cervix burden that should include collaboration and streamlining the community workers and primary health centres with tertiary centre.

There is high disparity in resources even in various districts of Uttar Pradesh as patients had travelled from peripheral districts to seek treatment, which lead to frequent treatment breaks and poor compliance for follow up.

As majority of patients were diagnosed in their advanced stage, it

underlines the importance of implementing screening programs in the community.

There is huge void present between prevention strategies and facility availed by the population. Education and awareness regarding vaccination and Pap test is the need of hour to fight this problem from its inception. This will decrease load on present health infrastructure.

30% of patients default before initiation of treatment which is also a major concern, we suggest to incorporate a counselling team which will not only help the patient to alleviate her fear regarding cancer but also will motivate family member to support her.

Lastly to conclude we require more hospital and population based registries to get the real picture and to improve our infrastructure accordingly.

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