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Original Research Article

A retrospective analysis of clinicopathological profile and compliance of locally advanced carcinoma cervix patients in the coastal region of Andhra Pradesh, India

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ABSTRACT

Background: Cancer of the cervix is the most common genital tract malignancy in the female and is a major public health problem in developing countries. Study of the sociodemographic data, clinical profile and compliance of patients is the first step in planning preventive measures and treatment facilities.

Aim: The aims of the study were to determine the sociodemographic data and clinical profile, prognostic factors, compliance to concurrent chemo radiation of cervical cancer patients and study their association with other tumor-related factors.

Materials and Methods: Our study is a record-based retrospective study from a single institution. The data of sociodemographic and clinical factors of 175 cervical cancer patients visited and their compliance to treatment were analyzed over a 2-year period. Data were analyzed using descriptive statistics.

Results: The mean age at presentation in our study is 54.8 years. The patients presented with bleeding per vagina as the most common presenting complaint i.e. 42.28%. 38.88% patients presented with both bleeding per vagina and white discharge per vagina and 18.85% patients presented with white discharge per vagina. 21.14% presented with symptoms less than 1 month, 52 patients presented with symptoms 1 to 3 months duration. 49.14% presented with symptoms >3 months. In our study, 62.85% patients were married at age < 17 > 17 years. squamous cell carcinoma is the most common histology in our study accounting for 85.71% followed by adenocarcinoma 11.42% other histologies accounted for 2.85%. 87.42% were grade 2 histologies. Stage IIB is the most common stage of presentation our study 47.4%. 86.28% patient are compliant with planned treatment (external beam radiotherapy +brachy therapy, 4.57% patients defaulted prior to the start of treatment, 3.42% patients defaulted during external beam radiotherapy, 15.71% defaulted for brachytherapy out of 151 patients who completed planned treatment, 80.79% patients received 5-6 cycles of concurrent cisplatin 40mg/m². 11.92% were lost to follow up at the end of 1 year.

Conclusion: Cervical cancer is a debilitating illness seen to affect mainly elderly women. Late presentation is still the norm, as majority of the patients presented with advanced disease at the time of diagnosis and were treated with radical radiotherapy, with or without chemotherapy. Compliance during treatment was good comparable to the other studies. The response and complication rates were comparable with other datasets. Further, the scope of studying socio-demographic factors is not limited to hospital services, and this information can also be utilized while making public health policies and implementation of cervical cancer control programs.

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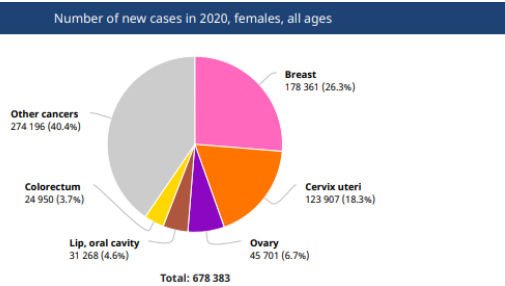
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1. Introduction

Uterine cervix cancer is one of the main causes of death in women worldwide. Leading cause of mortality among women in poor nations.

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Cervical cancer is the third most prevalent cancer overall in India. It is the second most frequent cause of death. Cervical cancer prevalence is around 42.82 per 1,00,000.¹ Cervical cancer accounts for 15% of all malignancies in women worldwide, and 20–30% of all cancers in South-East Asia.² Around 500,000 new instances of cervical cancer are reported each year, 79% of which are found in developing nations. Around 288,000 people die from cervical cancer each year worldwide.³ In Sub-Saharan Africa, the annual death rate for the disease is 22.5/100,000 women, while the rate of new cases is 34.8/100,000 women. On the other hand, these numbers are 2.5 and 6.6, respectively,⁴ in North America. The lack of access to services that enable early detection and treatment, as well as to effective screening, can be used to explain the contributing reasons to these drastic inequalities. For Indian women, the estimated cumulative lifetime risk and mortality rates from cervical cancer are 2.5% and 1.4%, respectively.⁵ The disease of cervical cancer is more commonly seen in poor socioeconomic communities and is an issue of equity on both levels: This is caused by a number of factors, including the infrastructure and human resources required for both early identification and treatment⁶ as well as social and economic development inequities. Although radiotherapy is still a viable treatment option for cervical cancer at all stages, the country's radiotherapy facilities are woefully insufficient to handle the rising number of cases being identified each year.⁷ The majority of cases show signs of the disease being far along. In this region of the world, treatment compliance and follow-up are still atrocious.⁸ To assess the demographic profiles, risk factors, stage of presentation, prognostic factors, and treatment compliance of carcinoma cervix patients attending the department of radiation oncology, GSL Medical College, we conducted a retrospective analysis of cervical cancer patients presenting to our cancer Centre in a rural/urban region of coastal Andhra Pradesh (tertiary care Centre).

2. Materials and Methods

This study, which comprised consecutive cervical cancer patients who visited a semi-urban cancer Centre between 2017 and 2019, was retrospective in nature. At the end of a year, descriptive statistics were used to

analyse data on demographic traits, presenting complaints, baseline hemoglobin values, marital and obstetric history, pathological variables including tumour type and grade, compliance with the planned course of treatment, and late effects of radiotherapy (EBRT & Brach therapy).

3. Results

Mean presentation age is 56 years bleeding per vagina is the most frequent presenting complaint in our study, accounting for 74 (42.28%) patients. 66 (38.88%) patients also had white discharge per vagina, and 33 (18.85%) patients had bleeding as well as white discharge per vaginum. 37 patients (21.14%) had symptoms that lasted less than a month, 52 patients (29.71%) had symptoms that lasted between one and three months, and 86 patients (49.14%) had symptoms that lasted longer than three months. In our study, 43 (24.57%) patients had hypertension, while 22 (12.57%) individuals had diabetes mellitus. In our study, 33 patients (or 18.57%) have a smoking habit. 110 patients (62.8%) had their first marriage at age under 17. 65 patients (37.15%) were married while they were older than 17 years. In our study, 121 women (69.14%) have multiple pregnancies. The most frequent histology in our analysis, accounting for 150 cases (85.71%), was squamous cell carcinoma, followed by adenocarcinoma (20 cases, 11.42%), and other histologies (5 cases, 2.85%). 87.42% of the histologies were grade 2. 88 patients, or 50.28 percent, had haemoglobin levels below 10 mg/dl at baseline. Baseline haemoglobin levels for 87 (49.71%) of the patients are greater than 10 mg/dl. Our study found that Stage 2B, which accounted for 47.4% of all presentations, was the most frequent stage. 151 patients (86.28%) are following the prescribed course of treatment (external beam radiotherapy plus brachytherapy), while 8 patients (4.57%) defaulted before the course of treatment even began, 6 patients (3.42%) defaulted during external beam radiotherapy, and 10 patients (5.71%) defaulted during brachytherapy. 122 (80.79%) of the 151 patients who completed the intended course of treatment received 5–6 cycles of concomitant cisplatin 40mg/m². After a year, 18 (11.92%) patients were no longer being followed up. 10 (6.62%) patients reported radiation proctitis as a late effect by the end of a year, while 42 (27.81%) patients developed vaginal adhesions as a result of late effects following radiotherapy.

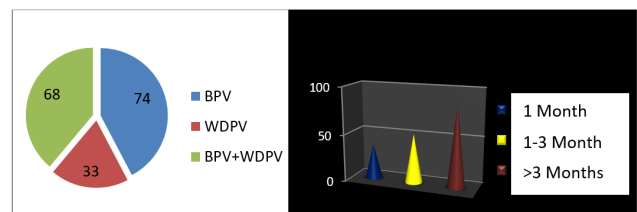


Fig. 1: Presenting complaint duration of symptoms

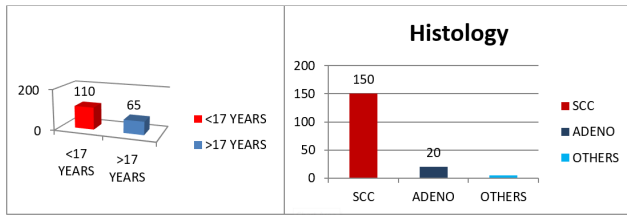


Fig. 2: Age at marriage

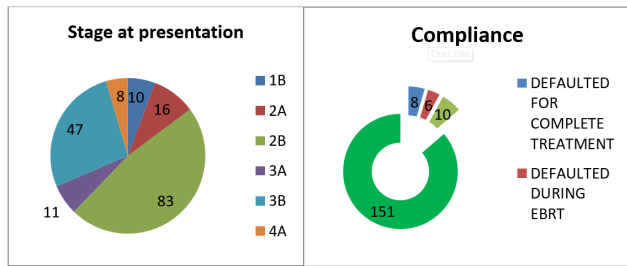


Fig. 3:

4. Discussion

Age, ethnicity, and race all influence the prevalence of cervical cancer. These variations might be explained by variations in risk variables such as obesity, parity, oral contraceptive use, HPV vaccination rates, and screening procedures.^{9,10} Our study’s mean age at presentation is 54 years old, which is comparable to Kaku’s study, which found a mean age of 56 years with an age range of 33 to 82 years.¹¹ Smoking tobacco is a known risk factor for the development of cancer and cervical precancer.¹² In this region of the country, chronic reverse smoking that begins at a young age is fairly widespread. In our study, 33 patients (or 18.57%) have a smoking habit. In our study, 42 (24.57%) patients had hypertension, and 22 (12.57%) individuals have diabetes mellitus.¹³ Up to 30% of cancer patients have anaemia, which is recognized to be a common risk factor in all the cervical cancer patients. Pretreatment anaemia¹⁴ was present in 50.28% of the patients in our sample, which is higher than the frequency of roughly 25% described in earlier studies.¹⁵ At the time of presentation, the majority of multiparous women are older in age, and the cause of their multiparity may be the absence of reproductive and child health programmes in the past. Early marriage (before the age of 18), low socioeconomic position, and usage of oral contraceptives were also noted as risk factors in our study. This was consistent with findings from WHO research carried out in other developing nations.¹⁶ It suggests that large tumours may be more anaemic than smaller tumours, and the conclusion in this study that there is a negative connection between tumour size and pretreatment haemoglobin level supports this theory. However, there was negative correlation between tumour

size and haemoglobin in our investigation. The main reason why so many patients have low haemoglobin levels is due to inadequate nutrition, which is most likely the result of low socioeconomic status. Before radiotherapy begins, proper nutrition counselling and blood transfusions may enhance the prognosis, as low Hb is a known independent risk factor for local recurrence. The most frequent presentation stage in our study, which is consistent to other studies, is Stage 2B. Only 10 patients had radiation proctitis after a year because 86.5% of the patients adhered to the prescribed treatment regimen. The change from 2D planning to 3D conformal approach (4 Field Box Technique) in our institute, which may be the reason for increased compliance compared to previous studies, is the key reason for compliance and fewer late toxicities. Improved compliance and fewer treatment interruptions can be achieved with routine monitoring of acute toxicities during radiation and prompt interventions. The state government’s health policy, which facilitates treatment at no cost and also provides financial help post-treatment for their nutritional needs, may be another factor contributing to compliance in our study. Reduced access to care, an increase in the frequency and severity of co-morbid illnesses, greater rates of avoidable hospitalization, and premature mortality are only a few of the extra compliance hurdles that present in the low socioeconomic population.¹⁷ Numerous studies have revealed certain traits linked to noncompliance, including as treatment toxicity, lack of accessibility to treatment facilities, and a lack of knowledge about the disease and its treatment.¹⁸

5. Conclusion

Cervical cancer is a crippling condition that primarily affects elderly women. The majority of patients came with advanced disease at the time of diagnosis and were treated with aggressive radical radiotherapy, with or without chemotherapy, so late presentation is still the norm. Comparable to other research, treatment compliance was high. With respect to other datasets, the responder and complication rates were comparable. Furthermore, the research of sociodemographic characteristics is not restricted to hospital services; it may also be used to guide public health policy and the implementation of initiatives to prevent cervical cancer.

6. Limitations

It is noteworthy that this study had some limitations. Firstly, the study being a retrospective study relied solely on the medical records. The study is not large enough to draw conclusions on the obtained results.

7. Source of Funding

Nil.

8. Conflicts of Interest

There are no conflicts of interest.


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