

Current Cancer Trends and the Need for Palliative Care at a Cancer Care Centre in Eastern India**Jyotirmaya Nayak¹, Nagendra Kumar Rajsamant², Sridhar Panda³, Gopabandhu Patra⁴, Sai Priyadarsini Das⁵**¹Associate Professor, Department of General Surgery, SCB Medical College, Cuttack²Assistant Professor, Department of General Surgery, SCB Medical College, Cuttack³Assistant Professor, Department of General Medicine, SCB Medical College, Cuttack⁴Assistant Professor, Department of Orthopaedics, Bhima Bhoi Medical College, Balangir⁵Junior Resident, SVNIRTAR, Cuttack

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Abstract:

Cancer as a disease has emerged as a leading source of morbidity and death in low and middle-income nations, where patients are more likely to be diagnosed with advanced disease than in high-income countries. According to the WHO Global Report, India lacks coordinated palliative care and has uneven activity. A lack of government priority for palliative care impedes proper policy solutions, resulting in limited regulation. Understanding current patterns of illness, treatment, and outcomes in LMICs is required for optimal development and implementation of cancer control programs. Between January 2021 and December 2022, a retrospective study was conducted at the Department of surgery, to study the current trends of carcinoma in patients presenting with advanced cancer and their need for palliative care services at a tertiary care cancer hospital. More over half of the participants (51.6%) are between the ages of 41 and 60, with the remainder older than 60. The female to male ratio was 2.2:1.65.83% of patients had stage III and stage IV malignancies, as well as physical, psychological, and emotional issues. In light of the presentation of advanced tumors at the Medical College associated cancer hospital, palliative care services at Medical College cancer departments are needed, in accordance with the National Cancer Control Program (NCCP) and WHO recommendations.

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Introduction

In India, cancer and other noncommunicable illnesses have emerged as serious public health issues. Cancer control necessitates a comprehensive approach, with palliative care playing a significant role. Palliative care has been available in India for nearly 20 years, despite its limited coverage. It is estimated that one million new instances of cancer are diagnosed in India each year, with more than 80% appearing at stages III and IV. Palliative care is desperately needed in India. [1] Its population has less than 1% access to pain treatment and palliative care. [2] Palliative care in India has grown steadily over the past four decades, from the early hospice movement in the 1980s to specialized and subspecialist palliative medicine in the 2020s. [3] Cancer causes patients and their families a great deal of social anxiety, physical and psychological pain, and poverty. [4] The most current revision of the World Health Organization's Universal Health Coverage Goals asks for a "full spectrum of essential, quality health services, from health promotion to prevention, treatment, rehabilitation, and palliative care." In 2016, there were an

estimated 815100 cancer deaths in India. According to the WHO Global Report, India lacks coordinated palliative care. [5] The World Health Organization defines palliative care as an approach that improves the quality of life of patients and their families dealing with the problems associated with life-threatening illness by preventing and relieving suffering through early detection, accurate assessment, and treatment of pain and other physical, psychosocial, and spiritual problems. [6] Over seven million new patients need palliative care in India each year, with fewer than 4% having access to these treatments. Inadequate access to palliative care leads to poor symptom management, a worse quality of life, ineffective end-of-life care, and a greater cost burden. Every year, around 3.5-6.2% of India's population gets poorer as a result of increased health cost at the end of life. Evidence suggests that people with cancer and other chronic diseases who are referred to palliative care have lower healthcare costs.

The revised National Cancer Control Programme of India emphasized the need of palliative care at the primary care level, which resulted in the construction of outpatient pain clinics in cancer centers, government and commercial hospitals, stand-alone hospices, outreach clinics, and homecare services. [7]

Aims & Objectives:

To study the current trends of carcinoma in patients presenting with advanced cancer and their need for palliative care services at a tertiary cancer care hospital.

Material and Methods:

Study design: Retrospective study.

Study period: January 2021 to December 2022

The data was collected from the hospital information system of a cancer hospital attached to a SCB medical college, Cuttack from January 2021 to December 2022. The patient's demographic data, the stage at the time of presentation and the diagnosis of the cases was recorded, categorized and analysed using SPSS software.

Results:

Age-wise distribution

The age group of people between the ages of 41 and 60 accounts for more than 50% of the subjects (51.6%), followed by people over the age of 60.

Hepatoblastoma and other childhood cancers make up only 1.2% of instances of cancer in people under 20.

Table 1: Age-wise distribution

Age	No. of cases	%
0-20	11	1.2
21-40	85	9.28
41-60	491	53.6
61-70	238	25.98
>71	91	9.94
Total	916	100

Sex-wise distribution of subjects: In the current study, 287 people were male, and 629 (68.66%) of the 916 participants were female. The female-to-male ratio was 2.2:1.

Table 2: Sex wise distribution of cases

Sex	No. of cases	%
Females	629	68.66
Males	287	31.33
Total	916	100

Stage-wise distribution: Locally advanced and metastatic cancers at presentation (Stage III and Stage IV) constitute 65.83% (603 patients out of 916), compared to early stage cancers (Stage 0, Stage I, and Stage II), which constitute 34.17% (313 out of 916).

Diagnosis wise distribution of cases:

In the present study, cervical cancer is the most common type of case, affecting 239 out of 916 patients (26.09%), followed by breast cancer (16.59%; 152 out of 916) and head and neck cancers.

Table 3 displays how the cases were distributed according to diagnosis.

Table 3: Diagnosis wise distribution of cases

Type of cancer	No. of cases
Oral Cavity and Oro pharyngeal cancers	131
Salivary gland malignancies	3
Nasopharyngeal cancers	1
Hypopharyngeal cancers	21
Oesophageal cancers	25
Stomach	40
Small bowel	3
Carcinoma colon	8
Carcinoma Rectum& Anal canal	24
Carcinoma liver, gallbladder & pancreas	33
Carcinoma Larynx	22
Carcinoma Lung	48
Carcinoma of Breast	152
Carcinoma of skin & Adnexa	14

Sarcomas	10
Carcinoma vulva &vagina	11
Carcinoma cervix	239
Carcinoma ovary	28
Endometrial Carcinoma	15
Carcinoma of penis	4
Carcinoma of prostate	9
Testicular malignancy	5
Carcinoma of kidney	3
Carcinoma of Ureter &Urinary bladder	11
Brain tumors	6
Thyroid malignancy	20
Unknown primary	15
Acute leukaemia	4
Chronic leukaemia	5
Multiple myeloma	2
Lymphoma	4
Total	916

Discussion

Cancer patients in low- and middle-income countries, including India, have a worse prognosis than those in high-income nations due to lower cancer awareness, late diagnosis, and inequitable access to inexpensive curative therapies. India has 1.3 billion people spread across 29 states and seven union territories, and many of the states are the size of countries, with varying degrees of development, population genetics, environments, and lifestyles, resulting in a heterogeneous distribution of disease burden and health loss. [8] Cancer affects around 2.25 million individuals in India, with one million new cases diagnosed each year and over 0.88 million fatalities. The vast majority of them have advanced metastatic illness, are in moderate to severe pain, and need palliative care. [7] The growth of the private sector in Indian health care has some clear implications for palliative care. For starters, many patients in need of palliative care have received or are seeking treatment at expensive private hospitals, placing them and their families at danger of catastrophic financial loss. Palliative care practitioners in India must battle with how to address this loss in their operations since it may be one of the most major causes of misery and poor quality of life for their patients. [9] The current research is a retrospective examination of significant cancer kinds, gender distribution, age distribution, and presenting stage. According to our findings, more than half of the individuals (51.6%) are between the ages of 41 and 60, followed by those over 60, which is consistent with the findings of Manjit.k.Rana et al. [10] and Sandhya et al. [4]. In our research, ladies had a substantially greater cancer incidence (68.66%) than men (31.33%). This is consistent with prior research by Bal et al. (2015) [male 35%; female 65%], Thakur et al. (2008) [male 25.2%; female 74.7%], and Aggarwal et al. (2015) [male 39.1%; female 60.9%].

[11,12,13]. In our research, 239 individuals out of 916 (26.09%) were diagnosed with cervical cancer, followed by breast cancer (16.59%; 152 out of 916) and head and neck cancers. However, recent research by Sandhya et al. (2009) and Bal et al. (2015) found that the most common cancer among females was breast cancer (30.3%-26.8%), followed by cervical cancer (13%). The higher prevalence of cervical cancer in our research might be attributed to their poor socioeconomic position and lack of information about cervical screening programs.

Locally advanced and metastatic malignancies at presentation (Stage III and IV) comprised 65.83% (603 patients out of 916) in our analysis, compared to early stage cancers (Stage 0, Stage I, and Stage II), which included 34.17% (313 out of 916). Only 8% to 14% of patients in the Mathew et al 2019 research had early-stage illness, that is, stage I/localized disease. Compared to 10% and 13% of individuals with breast and cervical cancer, respectively, the risk of metastatic disease at diagnosis was substantially greater in those with oral cavity (40%) and lung (46%) malignancies. Overall, the percentage of patients with advanced illness (stage III and IV or regional/metastatic) was 37% for breast cancer, 39% for cervical cancer, 67% for oral cavity cancer, and 88% for lung cancer. [14] Cancer patients need complicated interdisciplinary therapies from oncologists. These interventions include disease diagnosis and staging, developing a complicated treatment plan in collaboration with other team members (e.g., radiation and surgical oncologists), and managing cancer therapy and associated consequences. These are time-consuming chores that make it difficult for a busy oncologist to meet numerous supportive and palliative care requirements in the same visit. As the corpus of knowledge and possible therapies in cancer and palliative/supportive care grow

increasingly sophisticated, the shortage of time becomes an even greater worry. [15] Recent clinical studies exploring the impact of early specialized palliative care integration indicate significant gains in patient satisfaction, mood, quality of life, health care use, and overall survival. Patients who got early in-home palliative care in addition to standard treatment, for example, had fewer emergency department visits, hospital admissions, and decreased medical expenses. [16] Several oncology and palliative care organizations are currently establishing education programs targeted at expanding oncologists' repertoire of palliative care abilities. Patients with a greater degree of suffering or care demands, in particular, should be referred to expert interprofessional palliative care teams. There is currently a growing amount of data and interest to support the regular incorporation of early palliative care for cancer patients. [17]

Conclusion

More than 60% of cancer patients in Andhrapradesh's Anantapuramu district have locally advanced or metastatic illness, with definitive treatment playing a limited role and pain management and supportive care playing a large one. The increasing prevalence of cervical cancer in our research implies that pap smear screening and cervical cancer awareness programs should be strictly implemented. Palliative care services must be incorporated in medical college cancer departments since the majority of subjects live in rural and suburban regions, making it critical to provide treatment to people who are unable to travel far to regional cancer centers.

References

1. Khosla D, Patel FD, and Sharma SC Palliative care in India: current progress and future needs Indian J Palliat Care. 2012 Sep; 18(3):149–54.
2. Cancer control 2015, The current status of palliative care in India Dr.MR Rajagopal.
3. Salins N, Bhatnagar S, Simha S, Kumar S, and Rajagopal MR Palliative Care in India: Past, Present, and Future. Indian J Surg Oncol. 2022 Dec; 13(Suppl-1):83- 90.
4. Sandhya, M., Shanthi, M., Fareed, Nusrath, Sudhir, K., and Krishna Kumar, RVS Retrospective analysis of hospital records at a cancer institute in Nellore District, Andhra Pradesh Journal of the Indian Association of Public Health Dentistry. 2011;9(18):161–166
5. Harding R, Nair S, and Ekstrand M. Multilevel model of stigma and barriers to Cancer palliative care in India: a qualitative study. BMJ Open. 2019;9: e024248.
6. "WHO Definition of Palliative Care". World Health Organization. Retrieved March 16, 2012.
7. Rao SR, Salins N, Goh CR, Bhatnagar S. "Building palliative care capacity in cancer treatment centres: a participatory action res.arch". BMC Palliat Care. 2022 Jun 4; 21(1):101.
8. Dhillon PK, Mathur P, Nandakumar A, Fitzmaurice C, Kumar GA, Mehrotra R, et al. The burden of cancers and their variations across the states of India: the Global Burden of Disease Study 1990 2016. Lancet Oncol. 2018; 19(10):1289–1306.
9. Schear, S. E. (2017). "Our Duty and Our Right": Perspectives on Advancing Palliative Care in the Indian States of Kerala and Uttarakhand. UC Berkeley: /UCSFJoint Medical Program. Retrieved from <https://escholarship.org/uc/item/38g3k09r>
10. Rana M K, Barwal T S, Sharma U, et al. (June 21, 2021) Current Trends of Carcinoma: Experience of a Tertiary Care Cancer Center in North India.Cureus 13(6): e15788.
11. Bal MS, Bodal VK, Kaur J, Kaur M, Sharma S: Patterns of cancer: a study of 500 Punjabi patients. Asian Pac J Cancer Prev. 2015, 16:5107-10.
12. Thakur JS, Rao BT, Rajwanshi A, Parwana HK, and Kumar R. Epidemiological study of high cancer among rural agricultural communities of Punjab in Northern India. Int J Environ Res Public Health. 2008 Dec; 5(5):399–407.
13. Aggarwal R, Manuja, Aditya K, and Singh GP Pattern of cancer in a tertiary care hospital in the Malwa region of Punjab in comparison to other regions in India Journal of Clinical and Diagnostic Research: JCDR. 2015 Mar; 9(3):XC05-XC07.: 25954691.
14. Mathew A, George PS, Ramadas K, Mathew BS, Kumar A, Roshni S, Jayakumar KNL, Booth CM. Sociodemographic Factors and Stage of Cancer Diagnosis: A Population-Based Study in South India J Glob Oncol. 2019 Jul; 5:1-10.
15. Bruera E., Yennurajalingam S. Palliative care in advanced cancer patients: how and when? Oncologist. 2012; 17(2):267-73.
16. Agarwal R., Epstein AS. The Role of Palliative Care in Oncology Semin Intervent Radiol. 2017 Dec; 34(4):307-312.
17. Hui D, Finlay E, Buss MK, Prommer EE, Bruera E. Palliative Oncologists: Specialists in the Science and Art of Patient Care J Clin Oncol. 2015 Jul 10; 33(20):2314–7.