

Upward Trend of Geriatric Patients in Oncology at a Tertiary Health Care Centre

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ABSTRACT

Introduction: There is an upward trend in life expectancy resulting in an increased ratio of geriatric population (aged above 70 years) among Indian over the past few decades. The incidence of cancer among the aged is simultaneously coinciding with this trend. However, data is largely deficit, especially from eastern part of India. The aim of this study was to determine the burden of disease and pattern of care among geriatric cancer patients, treated at a tertiary health care centre.

Materials and Methods: All the patients aged above 70 years with treatment naïve histology proven solid tumours registered at our centre, from 01.01.2015 to 31.12.2019 were selected for this study. The baseline demographic profile, cancer subsites along with treatment provided was analysed using SPSS version 16 (IBM Inc, Armonk, New York, U.S.). Descriptive data are provided.

Results: The annual number of geriatric cancer patients registered at our centre has increased from 0.91% in 2015 to 2019 (3.9%). Males were more affected than females except in 2016, when cancer detection rate was 64% in females. Median age increased from 72 years in 2015 to 75 years in 2019. Breast carcinoma was most common among females. In males head neck and lung were most common primary subsites. Unlike in 2015, cancer detected in early stages was 61.9% which reduced to 15.5% in 2019, a fact attributed to increased use of PET CT scan. In 2019, 49.5% patients were treated with curative intent which was less than 61.9% in 2015.

Conclusion: Though the incidence is less than 5% at one tertiary health care centre, combined

pan Indian data is required to document this rising geriatric cancer patients, so that hospital as well as hospice based cancer management can be provided to them.

Key words: geriatric cancer, curative, palliative

INTRODUCTION

The 'senior citizen' or 'elderly' is defined as a person who is of age 60 years or above. As per Maintenance and Welfare of Parents and Senior Citizens Act, 2007, senior citizen includes any person of age of 60 years or above and is a citizen of India, who has attained the age. [1] According to a 2016 report by the ministry for statistics and programme implementation, India has 103.9 million elderly, people above age 60, about 8.5 per cent of the population, based on 2011 data. [2] A 2014 report by the non-profit HelpAge, India will transform from "youngest country" in 2020 to a country of elderly in 2050 with as many as 20 percent of the population addressed as senior citizens. With increasing age, come a whole lot of problems, from social insecurity to demanding health care needs which add to financial problems for senior citizens and the country as a whole. There is an increase in chronic diseases prevalence with intermittent outbursts of acute infections like COVID 19. Cancer gradually peaks around 70-80 years and after about age 80 there is a sharp decrease. [3-5] Gerontologists have defined elderly sub-groups as young-old (65-74 years), middle-old (75-84 years), and very old (≥ 85 years). [6] The age

criteria are different in western world with majority of studies considering 65 years as the cut-off for geriatric population. However recent guidelines have often accepted 70 years as a cut off age for determining the intent to treat the patients with curative or palliative treatment, deintensification of chemotherapy regimens and truncated radiation.

Data regarding geriatric population from Indian perspective is very limited. In our study we have limited our patients with 70 years and above as our study sample to identify the cancer incidence, co-morbidities along with treatments and outcomes attending a tertiary cancer centre.

MATERIALS AND METHODS

A retrospective audit was designed at a tertiary cancer institute in Kolkata for the years 2015-2019. Cut-off age for defining “elderly patients” was kept at 70 years at the time of biopsy. The inclusion criteria were: 1) had not received any definitive anticancer treatment prior to registration in the department, 2) FNAC and or biopsy was diagnostic of malignancy, 3) had received definitive treatment which included any surgical excision done with the intention of removal of complete tumour and the regional lymph nodes (biopsies were excluded.) or for palliation, radiation (radical or palliative) and/or any chemotherapy. Patients who had not received any form of treatment either for curative or palliative were not included in study.

From hospital registry database, demographic parameters like age, sex, literacy, performance status, co-morbidities; malignancy related details, staging details, intention of treatment and treatment details (surgery, radiotherapy or chemotherapy) were collected. The data was collected in Microsoft office 2010, Excel and analysed by SPSS version 16 (IBM Inc, Armonk, New York, USA).

RESULTS

Baseline demographic profiles

A total of 244 patients were analysed out of 328 patients initially included in study. Total number of geriatric cancer patients were 21/2316(0.91%) in 2015, 25/2285 (1.09%) in 2016, 45/2331(1.93%) in 2017, 56/2437(2.3%) in 2018 and 97/2434(3.9%) in 2019 respectively. The median age of our study population throughout the study was 72 years. The maximum age of patients was 93 years in 2018 against 78 years in 2015.(table 1) Males were more affected than females except in 2016, when cancer detection rate was 64% in females. Majority of the patients, irrespective of gender were in ECOG performance status 1 and 2.(table 1) Co-morbidities like COPD, diabetes, hypertension were common ailments found the study population.(table 2) Breast, head and neck and lung were common primary malignancy sites.(table 3) Over the years, the incidence of disease presentation shifted from early stages in 2015 to more locally advanced and metastatic stages in 2019. (table 4) This shift might be attributed to higher detection rates by more use of imagings like CT, MRI and PET CT scans. Breast and cervical cancers were the most common cancers among females. (table 4,5 and figure 1) Among males, lung and head and neck cancer were common primary sites.

Treatment parameters (tables 6a-c)

The treatment modalities included were either palliative (best supportive, chemotherapy, hormone therapy and /or palliative radiation) or curative (adjuvant or neoadjuvant chemotherapy, hormone therapy, radiation and /or concurrent chemoradiation). In 2019, 49.5% patients were treated with curative intent which was less than 61.9% in 2015. One of the reasons might be an increase in the mean age of patients diagnosed in 2019 and also higher incidence of locally advanced and metastatic disease. For patients treated with “curative intent”, surgery was possible in

38.5% of patients in 2015 against 27.1% in 2019. 2 patients of breast carcinoma had toilet mastectomy as part of palliative treatment in a locally advanced setting in 2016 and 2017. For rectal carcinoma curative surgery was done in 7 patients. Treatment for cervical cancer individuals included only whole pelvis radiation in 2 patients and chemoradiation in remaining 12 locally advanced cases. All patients did receive brachytherapy. The choice of concurrent chemotherapy was carboplatin for all patients. Median numbers of

chemotherapy cycles were 4. It is to be emphasized that there were frequent treatment interruptions ranging 5 days to 2weeks, due to haematological toxicities. Such treatment interruptions were also evident among patients of head and neck and lung cancer receiving radiation with curative intent. Patients with breast cancer who received EBRT had relatively better radiation tolerance with minimum treatment interruptions as well as minimum post radiation dermatitis and subcutaneous changes.

Table 1. Demographic profile of elderly patients.

Parameters	YEAR										P value	
	2015 (n=21)		2016 (n=25)		2017 (n=45)		2018 (n=56)		2019 (n=97)			
	N	N %	N	N %	N	N %	N	N %	N	N %		
Age in years												
Mean	71.90		71.60		71.58		76.13		75.18		0.000	
Median	72.00		70.00		71.00		73.00		75.00			
Std. Deviation	2.211		2.677		1.803		7.267		4.897			
Minimum	70		70		70		70		70			
Maximum	78		80		77		93		89			
Gender	Females	8	38.1%	16	64.0%	21	46.7%	28	50.0%	30	30.9%	0.019
	Males	13	61.9%	9	36.0%	24	53.3%	28	50.0%	67	69.1%	
ECOG Performance Status	0	3	14.3%	10	40.0%	6	13.3%	7	12.5%	4	4.1%	0.005
	1	12	57.1%	8	32.0%	28	62.2%	35	62.5%	59	60.8%	
	2	5	23.8%	6	24.0%	10	22.2%	14	25.0%	24	24.7%	
	3	1	4.8%	1	4.0%	1	2.2%	0	0.0%	7	7.2%	
	4	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	3.1%	
LITERACY	No	11	52.4%	5	20.0%	17	37.8%	28	50.0%	52	53.6%	0.027
	Yes	10	47.6%	20	80.0%	28	62.2%	28	50.0%	45	46.4%	
SOCIO ECONOMIC	Low	16	76.2%	18	72.0%	31	68.9%	35	62.5%	53	54.6%	0.057
	Middle	5	23.8%	5	20.0%	11	24.4%	21	37.5%	42	43.3%	
	Upper	0	0.0%	2	8.0%	3	6.7%	0	0.0%	2	2.1%	
MARTIAL	Married	17	81.0%	19	76.0%	35	77.8%	39	69.6%	80	82.5%	0.469
	Unmarried	4	19.0%	6	24.0%	10	22.2%	17	30.4%	17	17.5%	
RELIGION	Christian	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	3.1%	0.845
	Hindu	15	71.4%	17	68.0%	35	77.8%	42	75.0%	67	69.1%	
	Muslim	6	28.6%	8	32.0%	10	22.2%	14	25.0%	26	26.8%	
	Others	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	1.0%	

Table 2. Co-morbidities among the study population

Comorbidities	YEAR										P VALUE	
	2015 (n=21)		2016 (n=25)		2017 (n=45)		2018 (n=56)		2019 (n=97)			
	N	N %	N	N %	N	N %	N	N %	N	N %		
COPD	No	11	52.4%	20	80.0%	42	93.3%	50	89.3%	76	78.4%	0.001
	Yes	10	47.6%	5	20.0%	3	6.7%	6	10.7%	21	21.6%	
DM	No	13	61.9%	18	72.0%	35	77.8%	41	73.2%	55	56.7%	0.078
	Yes	8	38.1%	7	28.0%	10	22.2%	15	26.8%	42	43.3%	
HTN	No	7	33.3%	17	68.0%	25	55.6%	35	62.5%	63	64.9%	0.078
	Yes	14	66.7%	8	32.0%	20	44.4%	21	37.5%	34	35.1%	
CVA	No	20	95.2%	21	84.0%	40	88.9%	54	96.4%	82	84.5%	0.160
	Yes	1	4.8%	4	16.0%	5	11.1%	2	3.6%	15	15.5%	
CARDIAC	No	18	85.7%	24	96.0%	43	95.6%	56	100.0%	88	90.7%	0.086
	Yes	3	14.3%	1	4.0%	2	4.4%	0	0.0%	9	9.3%	
NEPHROPATHY	No	19	90.5%	23	92.0%	41	91.1%	50	89.3%	85	87.6%	0.956
	Yes	2	9.5%	2	8.0%	4	8.9%	6	10.7%	12	12.4%	

Table 3. Yearwise distribution incidence of cancer according to primary sites.

PRIMARY_SITE	YEAR									
	2015 (n=21)		2016 (n=25)		2017 (n=45)		2018 (n=56)		2019 (n=97)	
ASCITES	2	9.5%	0	0.0%	1	2.2%	0	0.0%	0	0.0%
BREAST	0	0.0%	15	60.0%	14	31.1%	21	37.5%	13	13.4%
CERVIX	0	0.0%	1	4.0%	1	2.2%	7	12.5%	5	5.2%
COLON	3	14.3%	0	0.0%	3	6.7%	0	0.0%	6	6.2%
ENDOMETRIUM	1	4.8%	0	0.0%	1	2.2%	0	0.0%	0	0.0%
GALL BLADDER	0	0.0%	0	0.0%	1	2.2%	0	0.0%	3	3.1%
GASTRIC	1	4.8%	0	0.0%	2	4.4%	0	0.0%	0	0.0%
HCC	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	3.1%
HNC	10	47.6%	4	16.0%	14	31.1%	4	7.1%	28	28.9%
KIDNEY	0	0.0%	1	4.0%	0	0.0%	4	7.1%	0	0.0%
LIVER	0	0.0%	0	0.0%	0	0.0%	1	1.8%	0	0.0%
LUNG	1	4.8%	1	4.0%	2	4.4%	6	10.7%	25	25.8%
LYMPHOMA	0	0.0%	1	4.0%	1	2.2%	1	1.8%	0	0.0%
MELANOMA	1	4.8%	0	0.0%	1	2.2%	0	0.0%	0	0.0%
SKIN SCC	0	0.0%	0	0.0%	0	0.0%	1	1.8%	0	0.0%
OVARY	0	0.0%	0	0.0%	1	2.2%	0	0.0%	0	0.0%
PENIS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	2.1%
PROSTATE	0	0.0%	1	4.0%	2	4.4%	3	5.4%	6	6.2%
RECTUM	1	4.8%	0	0.0%	1	2.2%	5	8.9%	3	3.1%
SARCOMA	0	0.0%	1	4.0%	0	0.0%	0	0.0%	0	0.0%
TESTIS	1	4.8%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
UNKNOWN PRIMARY	0	0.0%	0	0.0%	0	0.0%	3	5.4%	3	3.1%

Table 4. Yearwise disease presentation according to stage of cancer.

STAGE	YEAR										P VALUE
	2015 (n=21)		2016 (n=25)		2017 (n=45)		2018 (n=56)		2019 (n=97)		
	N	N %	N	N %	N	N %	N	N %	N	N %	
Early	13	61.9%	13	52.0%	22	48.9%	14	25.0%	15	15.5%	0.000
Locally advanced	3	14.3%	9	36.0%	16	35.6%	26	46.4%	46	47.4%	
Metastatic	5	23.8%	3	12.0%	7	15.6%	16	28.6%	36	37.1%	

Table 5. Primary site wise distribution of primary cancer sites

GENDER	2015		2016		2017		2018		2019	
	N	N %	N	N %	N	N %	N	N %	N	N %
FEMALES										
ASCITES	2	25.0%	0	0.0%	1	4.8%	0	0.0%	0	0.0%
BREAST	0	0.0%	14	87.5%	14	66.7%	21	75.0%	13	43.3%
CERVIX	0	0.0%	1	6.3%	1	4.8%	7	25.0%	5	16.7%
COLON	2	25.0%	0	0.0%	0	0.0%	0	0.0%	3	10.0%
ENDOMETRIUM	1	12.5%	0	0.0%	1	4.8%	0	0.0%	0	0.0%
GALL BLADDER	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	10.0%
HNC	1	12.5%	0	0.0%	1	4.8%	0	0.0%	4	13.3%
LUNG	1	12.5%	1	6.3%	1	4.8%	0	0.0%	2	6.7%
MELANOMA	1	12.5%	0	0.0%	1	4.8%	0	0.0%	0	0.0%
OVARY	0	0.0%	0	0.0%	1	4.8%	0	0.0%	0	0.0%
MALES										
BREAST	0	0.0%	1	11.1%	0	0.0%	0	0.0%	0	0.0%
COLON	1	7.7%	0	0.0%	3	12.5%	0	0.0%	3	4.5%
GALL BLADDER	0	0.0%	0	0.0%	1	4.2%	0	0.0%	0	0.0%
GASTRIC	1	7.7%	0	0.0%	2	8.3%	0	0.0%	0	0.0%
HCC	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	4.5%
HNC	9	69.2%	4	44.4%	13	54.2%	4	14.3%	24	35.8%
KIDNEY	0	0.0%	1	11.1%	0	0.0%	4	14.3%	0	0.0%
LIVER	0	0.0%	0	0.0%	0	0.0%	1	3.6%	0	0.0%
LUNG	0	0.0%	0	0.0%	1	4.2%	6	21.4%	23	34.3%
LYMPHOMA	0	0.0%	1	11.1%	1	4.2%	1	3.6%	0	0.0%
SKIN SCC	0	0.0%	0	0.0%	0	0.0%	1	3.6%	0	0.0%
PENIS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	3.0%
PROSTATE	0	0.0%	1	11.1%	2	8.3%	3	10.7%	6	9.0%
RECTUM	1	7.7%	0	0.0%	1	4.2%	5	17.9%	3	4.5%
SARCOMA	0	0.0%	1	11.1%	0	0.0%	0	0.0%	0	0.0%
TESTIS	1	7.7%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
UNKNOWN PRIMARY	0	0.0%	0	0.0%	0	0.0%	3	10.7%	3	4.5%

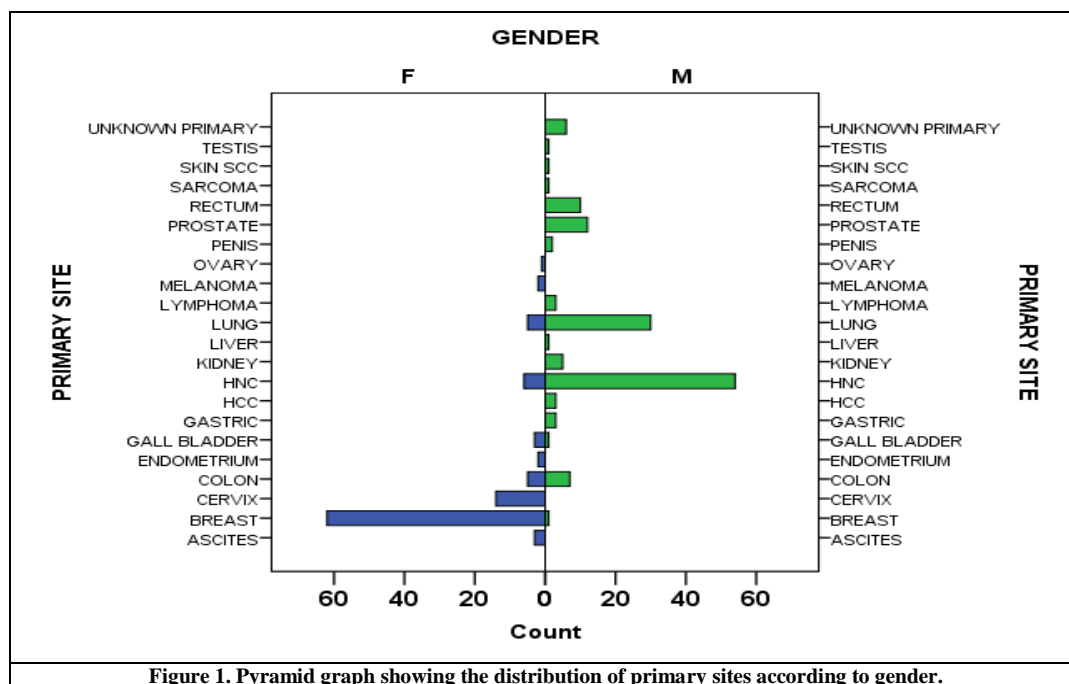


Figure 1. Pyramid graph showing the distribution of primary sites according to gender.

Treatment parameters		YEAR										P VALUE
		2015		2016		2017		2018		2019		
INTENT OF TREATMENT	Curative	13	61.9%	16	64.0%	30	66.7%	35	62.5%	48	49.5%	0.263
	Palliative	8	38.1%	9	36.0%	15	33.3%	21	37.5%	49	50.5%	
OPERATION	Unresectable / Inoperable	16	76.2%	10	40.0%	25	55.6%	30	53.6%	84	86.6%	0.000
	Operated	5	23.8%	15	60.0%	20	44.4%	26	46.4%	13	13.4%	
TREATMENT OPTIONS	No additional treatment	2	9.5%	0	0.0%	2	4.4%	0	0.0%	4	4.1%	0.048
	CT only	8	38.1%	5	20.0%	11	24.4%	9	16.1%	23	23.7%	
	RT only	0	0.0%	3	12.0%	2	4.4%	4	7.1%	17	17.5%	
	Both	11	52.4%	17	68.0%	30	66.7%	43	76.8%	53	54.6%	
RADIATION	NO	10	47.6%	4	16.0%	13	28.9%	6	10.7%	27	27.8%	0.489
	CURATIVE	8	38.1%	12	48.0%	22	48.9%	33	58.9%	38	39.2%	
	PALLIATIVE	3	14.3%	9	36.0%	10	22.2%	17	30.4%	32	33.0%	

PRIMARY SITES	TREATMENT OPTIONS							
	No additional treatment		CT only		RT only		Both	
	N	N %	N	N %	N	N %	N	N %
ASCITES	0	0.0%	3	5.4%	0	0.0%	0	0.0%
BREAST	0	0.0%	11	19.6%	0	0.0%	52	33.8%
CERVIX	0	0.0%	0	0.0%	2	7.7%	12	7.8%
COLON	5	62.5%	7	12.5%	0	0.0%	0	0.0%
ENDOMETRIUM	0	0.0%	2	3.6%	0	0.0%	0	0.0%
GALL BLADDER	1	12.5%	3	5.4%	0	0.0%	0	0.0%
GASTRIC	0	0.0%	3	5.4%	0	0.0%	0	0.0%
HCC	0	0.0%	3	5.4%	0	0.0%	0	0.0%
HNC	0	0.0%	1	1.8%	19	73.1%	40	26.0%
KIDNEY	0	0.0%	3	5.4%	2	7.7%	0	0.0%
LIVER	0	0.0%	1	1.8%	0	0.0%	0	0.0%
LUNG	0	0.0%	6	10.7%	1	3.8%	28	18.2%
LYMPHOMA	0	0.0%	2	3.6%	1	3.8%	0	0.0%
MELANOMA	0	0.0%	2	3.6%	0	0.0%	0	0.0%
SKIN SCC	0	0.0%	1	1.8%	0	0.0%	0	0.0%
OVARY	0	0.0%	1	1.8%	0	0.0%	0	0.0%
PENIS	2	25.0%	0	0.0%	0	0.0%	0	0.0%
PROSTATE	0	0.0%	0	0.0%	0	0.0%	12	7.8%
RECTUM	0	0.0%	2	3.6%	0	0.0%	8	5.2%
SARCOMA	0	0.0%	0	0.0%	1	3.8%	0	0.0%
TESTIS	0	0.0%	1	1.8%	0	0.0%	0	0.0%
UNKNOWN PRIMARY	0	0.0%	4	7.1%	0	0.0%	2	1.3%

PRIMARY SITE	RADIATION			
	YES (CURATIVE)		YES (PALLIATIVE)	
	N	N %	N	N %
BREAST	46	40.7%	6	8.5%
CERVIX	14	12.4%	0	0.0%
HNC	35	31.0%	24	33.8%
KIDNEY	0	0.0%	5	7.0%
LIVER	0	0.0%	1	1.4%
LUNG	13	11.5%	16	22.5%
LYMPHOMA	0	0.0%	1	1.4%
PROSTATE	0	0.0%	12	16.9%
RECTUM	5	4.4%	3	4.2%
SARCOMA	0	0.0%	1	1.4%
UNKNOWN PRIMARY	0	0.0%	2	2.8%
Total	113	100.0%	71	100.0%

Palliative radiation increased from 14.3% in 2015 to 33.0% in 2019. For head and neck cancers, QUADSHOT (14Gy in 4 fractions q 2weeks) was given in 13/24 patients which provided good symptomatic relief for pain, bleeding and dysphagia. For bone metastases, the majority of patients received 20Gy in 4 -5 fractions. Hemibody irradiation was provided in 3 patients for extensive skeletal metastases. All 12 patients of prostate cancer were metastatic at time of diagnosis with bone as the most common site. 3 patients had undergone surgical bilateral subcapsular orchidectomy while others received inj leuprolide 22.4 mg s/c 3 monthly dose schedule. 16/35 lung cancer patients received palliative radiation.

DISCUSSION

Ageing is the process of gradual impairment of functional capacity of an individual induced by increasing age related structural changes. [7] Population shift towards elderly aged individuals is a worldwide pattern. The increase in life expectancy is not only a health care burden in the west but is increasingly adding to health needs in developing countries like India, where the number of elderly Indians has increased by more than fourfold. [8] The age dependent chronic disease like diabetes, nephropathy, coronary heart disease, cancer remains the major morbidity and mortality health concern. The elderly population is highly vulnerable to cancer as they are often diagnosed at advanced stages largely due to delayed diagnosis, ignorance,

fear of anticancer treatment and due to financial constraints. [9-10] With age, there is increased global methylation, telomere shortening, defective DNA repair mechanism, and altered immune-system after prolonged exposure to carcinogens since early life leading to activation of oncogenes. [11-14] So cancer can be considered as a disease due to aging. [15,16] In USA elderly population above 65 years account for 50% of cancer. Data from five Indian Hospital based cancer registry (HBCR) also shows that roughly 20.3% of all malignancies occur in the population above 65 years. [3] Data generated from clinical trials conducted among the younger population cannot be extrapolated straight away to the elderly in view of the numerous aging related physiological changes and decline in functional organ reserve. [10]

A retrospective audit at a rural cancer centre in Kerala was conducted between 2010-2011 based on HBCR data to ascertain the patterns of care among 761 elderly patients of 70 years and above. The median age was 75 years (70-95 years). Among 451 males the frequent primary sites were head neck (32.4%), lung (23.3%) and gastrointestinal (23.3%). In 310 females, head neck (31.6%), gynecological (18.4%) and gastrointestinal (24.5%) were commonly affected. At presentation, localized disease was diagnosed in 228 (30%) of the patients whereas 376 (49.4%) had loco-regionally advanced disease and 145 (19.1%) had distant metastases. Curative intent of treatment was possible in only 334 (46.32%) of patients. The authors after logistic regression analysis, predicted age <75 years, performance status 0-1, primary site and clinical extent of disease as the factors for “curative intent of treatment”. Among patients with localized disease, 30.9% received palliative treatment. The combined modality treatment was used in most patients treated with curative intent. [17]

In a similar retrospective observational study from the tertiary government cancer institute, 247 patients

aged 65 years and older were analysed from 2016-2018 with special emphasis on radiotherapy. Mean age was 70.3 years. 66% of patients were males. 82 patients (33%) had metastatic disease. The common primary sites of malignancy were head and neck (28%), lung (23%), genitourinary (20%), and gastrointestinal malignancies (15%). Comorbidities were detected among 125 patients (51%). The authors studied the radiation treatment parameters. Radical treatment was administered in 135 patients (55%). The concurrent chemotherapy was used in 66 patients (27%). 89 patients (36%) required hospitalization during the radiation treatment. 58 patients (23%) had interruptions during radiation with 46 patients (19%) failing to complete the prescribed dose schedule. Grade 2,3 mucocutaneous adverse events were most commonly seen in 57% of patients followed by Grade 2,3 GI toxicities (53%). Only 3% had Grade 3 and 4 hematological toxicities. Mortality rate while on treatment was 4%. [18]

There was an increase in incidence of geriatric cancer from 2015 to 2019, a trend which shows gradual acceptance to treat elderly patients as government policies provide free anti cancer treatments. The median age of our study population was 72 years, with males in general more likely to be affected than females. Among females breast and cervical cancers predominated while in males, lung and head and neck cancers were more common. It is to be emphasized that smoking bidis was still prevalent among elderly males. Our study constraints were excluding patients who did not receive treatment, bias due to communication lapses, increasing the elderly age definition from 65 to 70 years, being single institutional and limited data to calculate survival analysis.

CONCLUSION

Even though our study showed less than 5% of our registered patients were elderly individuals, it might tip of the

iceberg as cumulative data might reveal a higher percentage. There will be a progressive increase in the number of geriatric oncology patients reporting to oncology centres for management in the years to come. Multimodality treatment should not be withheld only because of age but rather a comprehensive assessment and individualistic treatment plan should be selected. A significant number of elderly individuals can complete the curative treatment by continuous supervision, timely supportive care, and management of comorbidities.

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