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Research Article

Common Trend of Childhood Cancer in Eastern India

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Abstract

Background: Globally 85% of Paediatrics Cancer is reported in developing world. In India nearly 45,000 new paediatrics cancer cases are reported every year which contributed less than 5% of all the cancer cases (1) Riberto 5-year survival rate reported is only 10%, Globally more than 0.2 million cases are diagnosed every year. In developed world 5-year survival rate is quite high about 95% (2) Steller Average incidence of 75 to 150 Paediatrics cancer per million children, Average incidence in India is higher as compared to western population.

Material and Method: Our center is the State Cancer Institute, Indira Gandhi Institute of Medical Science, Patna which caters approximately million population of Bihar. All the pediatric patients 0–14-year male registered under HBCR program in Department of Radiation Oncology.

Result: Total 1978 childhood cancer was reported in our study. In which 357(68.3%) were male children and 627 (32.48%) where female children 0-19 years age groups common age group was 5 to 19 years 1058(78.31%) cases reported with this age group while 293 cases were reported in 0-4 years in male children which in girl children most cancer age group was 10-19 years in which 358 (57.09%) patients were reported.

Keywords: Childhood Cancer; Pediatric Cancer

Introduction

Globally 85% of Paediatrics Cancer is reported in developing world. In India nearly 45,000 new paediatrics cancer cases are reported every year which contributed less than 5% of all the cancer cases [1]. Riberto 5-year survival rate reported is only 10%, Globally more than 0.2 million cases are diagnosed every year. In developed world 5-year survival rate is quite high about 95% [2]. Steller Average incidence of 75 to 150 Paediatrics cancer per million children, Average incidence in India is higher as compared to western population [3,4]. In according to recent report of India National Cancer Registry Programme the proportion of childhood cancer (0-19 years) was found to range from 1%-4.9% relative of cancers of all ages [5]. NCRP 2021. Highest age adjusted incidence rate of 203.1 per million in boys and 125.4 per million in girls reported by Delhi PBCR. Incidence of childhood cancer is increasing worldwide, higher incidence and mortality reported in developing

countries as compare to developed countries [6] to of five sites of childhood cancer are Leukemia, lymphoma, central nervous system (CNS), Kidney and liver both shown higher incidences in males than in females [7,8].

Material and Method

Our center is the State Cancer Institute, Indira Gandhi Institute of Medical Science, Patna which caters approximately million population of Bihar. All the pediatric patients 0–14-year male registered under HBCR program in Department of Radiation Oncology. All the cancer were divided according to the disease hematolymphoid, in which all type of leukemia, lymphoma and including burettes lymphoma included other tumor solid malignancies cancers. Wilms tumor, bone tumor, Sarcoma Retinoblastoma, liver cancers, CNS tumor, Head and neck tumor.

Results

Records of children who had cancer and were treated our institution, inclusive, were reviewed retrospectively. Information recorded for each patient included age, gender, diagnostic procedures, extent of disease, treatment methods, and histological types. Total 1978 childhood cancer was reported in our study. In which 357(68.3%) were male children and 627 (32.48%) where female children 0-19 years age groups common age group was 5 to 19 years 1058(78.31%) cases reported with this age group while 293 cases were reported in 0-4 years in male children which in girl children most cancer age group was 10-19 years in which 358 (57.09%) patients were reported. 5-09 years age group least cases were reported about 16.9% in female children group. Most common malignancy registered was Non-Hodgkin's Lymphoma in which 225 cases were registered in which 167 boys and 58 were girls. Male: Female ratio was 2.8. Median age of diagnosis was 12 years, 2nd most common cancer was Acute lymphatic Leukemia in which 205 case were registered. 157 were males and 49 were females. M:F ratio was 3.2. Median age of analysis was 9 years. 3rd most common malignancy was Hodgkin's lymphoma in which 131 were males and 20 were females. Median age of diagnosis was 10 years. With the most common cancer was within tumor in which 126 cases were registered. 82 were males and 44 were females, male: female ratio was 1.8, median age of diagnosed was 3 years. other cancer was CML in which median age was 16 years. 22 patient of Carcinoma Liver were registered 6 cases of Hepatoblastoma, Hepatic carcinoma. 17 patient of carcinoma stomach were reported with common histopathology of neuroendocrine tumors and signet cell gastric carcinoma, 18 patients of Carcinoma Lungs were registered common pathology was adenocarcinoma. 34 patients of head and neck cancer were registered 25 patients of squamous cell carcinoma.

Breast cancer in this age group is still very rare; it is possible for a teenager to develop breast cancer. There were 12-year girl, 17-year girl and 18-year girl who were treated for Breast cancer our institution. One patient received adjuvant chemotherapy, one patient moves for another hospital and one patient our institution advised treatment but not accepted. Colorectal carcinoma is extremely rare in children. There were 12-year Boy, 14-year boy and 13-year girl who were treated for colorectal carcinoma. Predominant histological type was mucinous, adenocarcinoma. One patient received chemotherapy and two patients take treatment planned outside our institution. Cervical cancer is the most common female malignant tumor in upper age group but rare in younger group. There were two 17-year girl treated for cervical cancer our institution. One patient received radiotherapy and one patient received chemotherapy.

Diagnosis	Female	Male	Total
Non-hodgkin lymphoma	58	167	225
All	50	169	210
Hodgkin lymphoma	20	131	151
Acute leukemia	25	59	84
Chronic myeloid leukemia	30	64	94
Lymphoma	8	34	42
Acute myeloid leukemia	43	88	131
Multiple myeloma	2	12	14
Burkitt cell leukemia	2	4	6
Total	238	728	957

Table 1: Haematolymphoid malignancies.

	Boys		Girls	
Age Group	N	%	N	%
00-04	293	21.68%	163	25.99%
05--09	331	24.50%	106	16.90%
10--14	332	24.57%	172	27.43%
15--19	395	29.23%	186	29.66%
Total	1351(68%)	100%	627	100%

Table 2: Differentiation of Boys and Girls according to various age group.

Religion	Female	Male	Total
Christian	-	1	1
Hindu	526	1203	1729
Muslim	100	147	247
Parsi	1	-	1
Total	627	1351	1978

Table 3: Distribution of Male and Females according to their Religion.

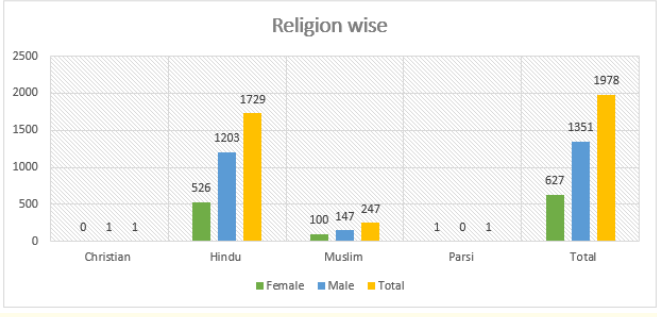

Figure 1: Male and Female distribution religion wise.

Education	Total
College and above	33
Illiterate	337
Literate	147
Middle	280
Not applicable (for children below 5 years)	456
Primary	491
Secondary	165
Technical-after matric	38
Unknown	31
Total	1978

Table 4: Distribution according to their Educational Qualification.

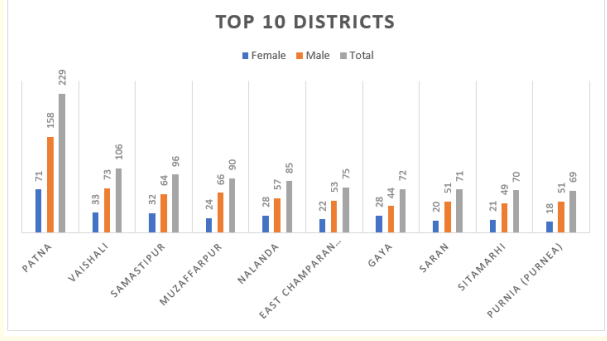

Figure 2: Distribution of Male and Female District wise.

Diagnosis	Total Cases	Girls	Boys	Boys to Girl Ratio	Median Age (Years)
Non-Hodgkin Lymphoma	225	58	167	2.8	12
Acute Lymphatic Leukaemia	205	49	157	3.2	9
Hodgkin Lymphoma	151	20	131	6.5	10
Chronic Myeloid Leukaemia	94	30	64	2.1	16
Acute Leukaemia	84	25	59	2.3	11
Acute Myeloid Leukaemia	83	28	55	1.9	11
Lymphoma	42	8	34	4.2	9
Burkitt cell Leukaemia	6	2	4	2	5

Table 5: Distribution of Childhood Cancer according to Hematolymphoid malignancies.

Figure 3: Childhood cancer according to hematolymphoid malignancies.

Morphology Stomach	No. of Patients
Signet Ring Cell Carcinoma	2
Mucinous Adenocarcinoma	2
Gastric Signet ring Cell Carcinoma	3
Gastric Adenocarcinoma	3
Neuroendocrine Carcinoma	4
Adenocarcinoma	3
Total	17

Table 6: Morphology Stomach (0-19) = 17 Patient.

Morphology Lung	No. of Patients
Non-Small Cell Carcinoma	3
Adenocarcinoma	8
Small Cell Carcinoma	4
Mucinous Adenocarcinoma	1
Papillary Adenocarcinoma	1
Bronchio-alveolar adenocarcinoma	1
Total	18

Table 7: Morphology Lung (0-19) = 18 Patient.

Morphology Head and Neck	No. of Patients
Squamouse Cell Carcinoma	25
Nasopharyngeal tumor	1
Esthesioneuroblastoma	1
Rhabdomysarcoma	3
Papillary Carcinoma	2
Salivary gland carcinomas	2
Total	34

Table 8: Morphology Head and neck (0-19) = 34 Patient.

Morphology Liver	No. of Patients
Hepatoblastoma	6
Infantile Choriocarcinoma	1
Hepatocellurcarcinoma	7
Hepatic carcinoma	8
Total	22

Table 9: Morphology Liver (0-19) = 22 Patient.

Diagnosis (Brain ICD-10: C71C72)	Female	Male	Total
Glioblastoma	11	38	49
Astrocytoma	1	14	15
CNS	2	1	3
Medulloblastoma	-	8	8
Glioma, malignant	1	6	7
Astroblastoma	-	4	4
Glioblastoma multiforme	3	1	4
Ependymoma	-	3	3
Oligoastrocytoma	-	3	3
Total	18	78	96

Table 10: Diagnosis of Brain.

Diagnosis (Kidney ICD-10: C64)	Female	Male	Total
Wilms tumor	44	82	126
Neuroblastoma	8	13	21
Nephroblastoma	2	5	7
Transitional cell carcinoma	2	2	4
Total	56	102	158

Table 11: Diagnosis of Kidney.

Diagnosis (Soft tissue sarcoma)	Female	Male	Total
Sarcoma	18	43	61
Rhabdomyosarcoma	10	14	24
Round cell sarcoma	2	5	7
Soft tissue sarcoma	5	1	6
Rhabdoid sarcoma	1	2	3
Spindle cell sarcoma	1	2	3
Total	37	67	104

Table 12: Diagnosis of Soft tissue Sarcoma.

Diagnosis (Bone ICD-10: C40-41, C47, C49)	Female	Male	Total
OSTEOSARCOMA	31	39	70
EWING SARCOMA	19	32	51
Total	50	71	121

Table 13: Diagnosis of Bone.

Diagnosis (Testis ICD-10: C62)	Female	Male	Total
GERM CELL TUMOR	8	6	14
DYSGERMINOMA	3	-	3
SEMINOMA	-	3	3
Total	11	9	20

Table 14: Diagnosis of Testis.

Figure 4: Distribution according to Educational Qualification.

Diagnosis	Total Cases	Girls	Boys	Boys to Girls Ratio	Median Age (years)
Non-Hodgkin Lymphoma	225	58	167	2.8	12
ALL	205	49	157	3.2	9
Hodgkin Lymphoma	151	20	131	6.5	10
Chronic Myeloid Leukaemia	94	30	64	2.1	16
Acute Leukaemia	84	25	59	2.3	11
Acute Myeloid Leukaemia	83	28	55	1.9	11
Lymphoma	42	8	34	4.2	9
Burkitt Cell Leukaemia	6	2	4	2	5
ALL = Acute lymphoblastic leukaemia					

Table 15: Distribution of childhood haematolymphoid malignancies.

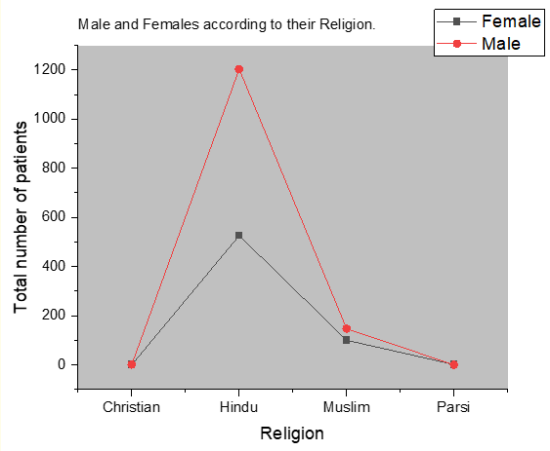

Figure 5: Religion wise male and female data.

Figure 6: Rare Cancer of Childhood.

Leukemia

In our study Acute Lymphoblastic Leukemia (ALL) was the 2nd commonest malignancy. Male: Female ratio was 2.8:1, median age of representation was 4 years. Acute lymphoblastic Leukemia referred in 83 cases in which Male: Female ratio was 1.9:1, Median age of representation was 11 years.

Lymphoma

Non-Hodgkin's lymphoma

In our study it was the most common cancer in childhood cancer, Male: Female ratio was 2.8:1 and median age of presentation was 12 years.

Hodgkin's lymphoma

In our study total case reported were 151. Male: Female ratio was 6.5:1, Median age of presentation was 10 years.

22 Patients of Carcinoma Liver were registered, 6 cases of Hepatoblastoma, Hepatic Carcinoma and 17 patients of Carcinoma Stomach were reported with common histopathology of neuroendocrine tumors and Signet Cell Carcinoma.

CNS tumor

In our study 67 cases of CNS tumor were reported in which 49 cases were of glioblastoma with Male: Female ratio of 3.4:1 and median age of presentation was 10 years.

Bone tumor

In our study of Bone tumor 125(6.3%) cases were registered. Osteosarcoma cases found was 71 (57%) in which Male: Female ratio was 1.2:1, Median age of presentation was 14 years.

Ewing sarcoma

In our study 51 (40%) cases of Ewing sarcoma was found in which Male: Female ratio was 1.6:1, Median age of presentation was 14 years. In India shown 3 years 55% disease free survival in localized disease. Another study shown 5 years disease free survival 38% [68,69]. Lamya Institutional review from North India shown 5-year overall survival 52.4%.

Osteogenic sarcoma

In our study of osteogenic sarcoma only 4 cases (3%) were found with median age of presentation were 13 years.

Neuroblastoma

In our study only 21 cases of Neuroblastoma were reported, with Male: Female ratio of 1.6:1, Median age of presentation was 3 years. In India it accounts 4.2%-8.3% of childhood cancer [38]. 5-year survival rate is 28% and 36.9% from South India shown by PBCR [13,51].

Wilms tumor

In our study 128 cases of Wilms Tumor were registered, with Male: Female distribution of 1.8:1, 18 Patients of Carcinoma Lung were registered Common Pathology was Adenocarcinoma. 34 Patients of Head and Neck Cancer were registered, 25 Patients of squamous cell carcinoma.

Retinoblastoma

In our study 112 cases of Retinoblastoma were registered, with Male: Female ratio of 2:1, Median age of presentation was 3 years, 44 patients were female and 68 patients were male.

Discussion

Globally Leukemia is the commonest tumor 36.1% of the total childhood cancer the same incidence is also shown in Canada (32.4%), Australia (32.4%), Taiwan (33.9%) and other countries at various time interval, Other commonest tumor are CNS tumor, with 13.9%-22.7% and Lymphoma 10%-12% while in Urban area Delhi Lymphoma shown 15% and CNS tumor shown 11% of all childhood cancers [9-12]. In Chennai Lymphoma shown 20% and CNS tumor shown 11% of all childhood cases [13]. Mortality rate has decreased about 30 per million childhood per year [14,15]. Mortality rate is 14-34 per million children per year in India incidence and mortality rate varies in different parts of India from 17%-72%. Mortality rate is high in Rural Ahmadabad and Barshi, 61% and 72%. In urban areas mortality rate is higher 2 times as compared to Delhi, Bangalore, Bhopal, Chennai [16]. Highest Incidence reported from Chennai and lower cases were reported from Rural Ahmedabad. Incidence reported from urban areas are higher than rural areas [17].

Childhood cancer is more common in males than compared to females. Resource rich countries reported Male: Female ratio 1.2:1 [14,15]. Incidence reported in India in Male Childhood cancer is 39-150 per million per year, while in female it is 23-97 per million per year in all PBCR except North Eastern India, Male: Female ratio is much higher than developed part of the world.

In India Leukemia is the commonest childhood cancer with relative population between 25 and 40% and 60 to 85% of the Leukemia is diagnosed as Acute lymphoblastic Leukemia (ALC). In India 20-50% of Leukemias are reported T-Cell, all which lower incidence reported from developed parts of the world.10%-20% [18-21]. In developed countries 2nd most commonest cancer reported is CNS Tumor (22-25%) and Lymphomas reported as 3rd most commonest (10%), In India lymphomas are more common than CNS Tumor. Acute lymph leukemia is presented at later stage 6-10 years [22,23] In India overall survival rate ranges from 45-81% as compared to high income countries [22,24] In India Leukemia contributed in 40-50% childhood cancers [6,25], In which 60-85% of patients found of acute lymphoblastic Leukemia [ALL], Higher proportion of T-cells, all seen in India as compared to developed countries. A poor prognosis reported with this cancer due to hypodiploidy and translocation of t (1:19), t (9:2) and t (4:11) [18-21] Peak incidence occurs in 2-5 years of age [26]. In our study Acute lymphoblastic Leukemia (ALL) was the 2nd commonest malignancy. Male: Female ratio was 2.8:1, median age of representation was 4 years. Acute lymphoblastic Leukemia referred in 83 cases in which Male: Female ratio was 1.9:1, Median age of representation was 11 years. In an institutional review, Burkitt's Lymphoma and Lymphoblastic lymphoma found predominant subtypes followed by Anaplastic and diffuse large B cells lymphoma [27,28]. In our study it was the most common cancer in childhood cancer, Male: Female ratio was 2.8:1 and median age of presentation was 12 years. Most of the children is presented with β symptoms in the advanced stage. [27,29] In India overall survival rate reported is 90% in the early stage and 61% in the advanced stage. [24,28,30]. Predominantly it shows mixed cellularity histology and younger age at presentation. It may be due to presence of Epstein Barr virus infection [25,31]. In CNS tumor 5-year survival is more than 90% [31-33]. In our study total case reported were 151. Male: Female ratio was 6.5:1, Median age of presentation was 10 years. 67 cases of CNS tumor were reported In which 49 cases were of glioblastoma with Male: Female ratio of 3.4:1 and median age of presentation was 10 years, 15 cases of Astrocytoma were reported with Male: Female ratio of 10:1, Median age of presentation was 10 years. According to Hospital Based Cancer Registry (HBCR) Report 2012-2014 CNS tumor contributes about 8-12% of childhood cancer [34], In a multi-institutional review report Astrocytoma and Medulloblastoma were the commonest cancer [35]. Relatively lower incidence reported in India may be due to mis diagnosis as lack of awareness about this disease due to non-specific symptoms [15,36]. In the developed world incidence of CNS tumor is quite high, it is the 2nd commonest tumor [14,15]. In India incidence of CNS tumor is 10-20 Million per year in Bangalore, Chennai, Delhi and Mumbai, Neuroblastoma which is the 2nd commonest tumor after CNS tumor in pediatric cancer is less frequent in India [17,37-39]. In our study only 21 cases were reported with Male: Female ratio of 1.6:1, Median age of presentation was 3 years. In India it accounts 4.2%-8.3% of childhood cancer [34]. 5-year survival rate is 28% and 36.9% from South India shown by PBCR [40,41]. 128 cases were registered with Male: Female distribution of 1.8:1, Median age of presentation was 3 years. In India survival rate reported is 92.5% in localized and 16.4% in metastatic tumor [24,42,43]. In India 5-year event free survival reported 43-57% other tumor, germ cell tumor, seminoma, soft tissue sarcoma, hepatoblastoma noted. It constitutes about 10-12% of total childhood cancer [34]. 5-year overall survival shown 50.3% by a single centered analysis of 237 patients.54.6% overall survival rate shown by another study from south India [44,45].

In India shown 3 years 55% disease free survival in localized disease. Another study shown 5 years disease free survival 38% [46,47]. Lamya Institutional review from North India shown 5-year overall survival 52.4% [43]. In India it contributes about 6-10% of the Childhood tumors [6,25]. Mean age of presentation varies between 29-34 months in various studies [48-50]. 44 cases were registered in our study with Male: Female ratio of 2:1, Median age of presentation was 3 years.

According to NCRP total 42.34% cases of all childhood cancer reported with leukemia in which 66.98% Male and 33.2% were females. Lymphoid leukemia was commonest about 72%, second commonest was acute lymphocytic leukemia 17.46%. In lymphoma total 3% of all childhood cancer were reported, Male: Female ratio was 3:1, In Hodkins Lymphoma 48.46% of all lymphoma cases were reported. 37.97% cases of all lymphoma cases were reported, non-Hodgkin's lymphoma, Male: Female ratio was 3:1 in both the cancers. Male: Female ratio was 2.8:1, In our study non-Hodgkin's lymphoma was commonest, 2nd commonest was Acute Lymphoma, Total 7.8% of childhood cancer were reported in kidney cancer, 93.39% cases of patient were of Wilms tumor, In our study most

common was the Wilms tumor and 6.6% cases of renal carcinoma reported, Male: Female ratio was 1.3: 1. 26.3% of all childhood cancer were reported of bone tumors, In our study osteosarcoma was the commonest tumor 2nd most common was Ewings Sarcoma, Male: Female ratio was 1.6:1. 58.23% were osteosarcoma, 34.5% were of Ewing sarcoma, Male: Female ratio was 1.7:1. 14.2% of cases of all pediatric tumor reported in all CNS tumor commonest was, PNET, astrocytoma and other gliomas, 33.7% 22.9% and 21%, Male: Female ratio was 1.7:1. In our study glioblastoma was commonest followed by Astrocytoma, male: female ratio was 3.4:1. Retinoblastoma, soft tissue sarcoma cases also reported, they contributed 15% of all childhood cancers, Distribution of childhood cancer according to different age group was same in our study as reported in NCRP. In Europe Childhood cancer incidence is increasing by 1.1% every year with change of rate and direction of cancer type [27]. Increase of CNS tumor 1.7%, Lymphoma 0.8%, Leukemia 0.6%, In India Increase of cancer incidence is more in female patient than male patient [31]. In a study male patient were more registered than the females, reason may be due to gender bias, 5 years overall same rate is highest for uterus tumor and Hodkins Lymphoma about 2/3rd rate of patient survive for 5 years. Bangalore and Chennai shown 5-year survival for all childhood cancers is 37-40%. Good prognosis seen in retinoblastoma and germ cell tumors. Prognosis is poor with Leukemia and CNS tumors only 30% and 25% of the patient survive 5 years. In India incidence of new childhood cancer is decreasing in both the sexes may be due to decreasing fertility rate in India [51], In India highest mortality shown in Leukemia followed by lymphoma and CNS tumors, while CNS tumors have shown poor survival followed by leukemia and neuroblastoma in Britain. Some of the etiological factors like genetic causes, parental smoking, environmental exposure, high birth weight and high maternal age are shown association for causation of childhood cancer [52,53]. Study done in US a case-controlled study shown every 5-year increase in maternal age, increases 8% risk in childhood cancer [54].

In India childhood cancer account for 7%-4.4% of total cancer according to the PBCR Report (2012-2014) which is nearly similar to 2009 to 2011 PBCR report [55,56]. A wide variation seen between age adjusted Incidence rate seen with Delhi which have highest AAR per million in both genders 235.3 for boys and 152.3 for girls in Chennai (South India) 156.7 for boys and 85.6 for girls and is Aizwal district of North Eastern India 136.1 for boys and 88.7 for girls [55]. High incidence in Delhi may be due to referral basis from other part of the country. The rate of exposure to risk factor. Gender variation is seen in childhood cancer incidence in India. Male: Female ratio 1:56 [57]. Hepatoblastoma and Hepatocellular carcinoma account for 0.5%-1.5% of all the pediatric cancers. Worldwide about 60%-80% of the Liver Cancer are reported Hepatoblastoma and 20%-33%.

Hepatocellular Carcinoma [1] age group most commonly presented with Hepatocellular Carcinoma 10-14 years. Males are more affected than females (3:1). Usually presented in advanced stage in children than the adults, only 0.5%-1% of all the Hepatocellular Carcinoma occurs in Pediatric Patients [58-60].

Colorectal carcinoma in adolescents is rare constituting about 1% of all Pediatric cancers [61]. In India as per Indian Council of Medical Research (ICMR) data annual incidence of 8.5/million of Colorectal Carcinoma and in Pediatric population 1/million of all malignancies reported. Males are usually affected more than female [62]. In our study also Males were more registered than females.

Primary Adenocarcinoma Lung in Pediatric group is extremely rare. In 1982 a review report of 230 Pediatric Patients in a English language literature shown only 47 cases reported as bronchogenic carcinoma [63]. Gastrointestinal Malignancies in children account only 5% of Pediatric Neoplasm and Primary gastric adenocarcinoma accounts 0.05% of all the Pediatric Cancers [64].

Primary breast cancer is rare in children <1% of the breast cancer reported under the age of 30 years and 1 in 1,00,000 is less than 20 years [65-67]. Only 3 cases is reported in a study.

Study done by Christopher shown 4.2% of all gynecological malignancies in Girls is less than 18 years. In our study 3 patients were reported, about 1.1% of all cancer reported as Ovarian Cancer, approximately 80% of all the Ovarian Tumors are germ cell tumor in children less than 18 years of age, these cancer shows increasing incidence in this group with good prognosis and 5- and 10-year survival rate reported 97.2% and 96%, About 11% Cancers are epithelial and sex cord tumor with 10-year survival rate of 67.5% and 67.8% [68].

Head and neck cancer in children is relatively rare approximately 1 in 333 patients between 0 and 20 years of the cases each

year in the United States. 5% of all the Childhood Malignancies approximately 550 children per year [3]. Studies shown increasing trend of childhood malignancies, Global studies shown common pediatric tumors as Lymphoma 59%, Rhabdomyosarcoma 13%, Thyroid 10%, Nasopharyngeal carcinoma 5%, Soft tissue sarcoma 4.5%.

Conclusion

- Total 1978 cases were registered under 0-19 years of age group, In which 68.3% were Males and 32.48% patient were females. Commonest age group was 5-19 years (78.31%).
- Commonest malignancy reported was Non-Hodkin's Lymphoma 11.3%, Median age was 12 years.
- 2nd commonest was Acute Lymphocytic Leukaemia 10.36%, 3rd commonest was Hodkin's Lymphoma 7.6%.
- Other common tumours were Wilms tumour 7.6%, Retinoblastoma (6.4%) and CNS tumour 4.8%.
- Rare tumours among this age group reported were Carcinoma Gall Bladder, Head and Neck 34 cases, Carcinoma Stomach 17 cases, Carcinoma Liver 22 cases, Carcinoma Lung 18 cases, Carcinoma Breast 3 cases, Carcinoma Cervix 3 cases, Carcinoma Colon Rectum 3 cases.

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