

Cohort Pediatric Cancer Registry: a single-center study registration from Iran

Cancer is a leading cause of death among children worldwide about 400,000 children are diagnosed with cancer each year. That, 90% Of those occur in low & middle-income countries, survival rates can be as low as 30-60%, there is no reliable data about incidence & mortality rates in childhood cancer.

In Iran, there is no unique & national population-based study on childhood cancer registry. so, we try to have a cancer registry in one of a biggest center for pediatric cancer treatment in the capital city of Iran, Tehran.

we designed a unique questionnaire & this was included patients' demographic information and other information about Outcome category.

All data was entered in SPSS software version 22 .

From April 2007 until May 2014, 1500 patients younger than 20 years old were enrolled in this study. 1371(91.4%) patients were Iranian and others were from other countries.

The most common malignancies were leukemia (30.66%), then brain tumors (27.13%), sarcoma (14.4%), retinoblastoma (14.06%), lymphoma (8%), renal tumors (3.06%), neuroblastoma (1.4%) and the lowest percentage was related to Langerhans cell histiocytosis (1.26%). According to Flow cytometry of bone marrow sample of patients with leukemia, the Most common leukemia has been ALL the Second most has been AML.

According to WHO classification of brain tumor the most common pathology has been glioma then medulloblastoma & ependymoma.

35% of patients in sarcoma group was Ewing sarcoma 28%, Rhabdomyosarcoma, 22% osteosarcoma and non-rhabdomyosarcoma soft tissue (NRSTS) was very rare only 13%.

Most common lymphoma was Hodgkin then Non-Hodgkin Lymphoma. 95.6% of renal tumor was Wilms.

Childhood cancer is more common in males (57.4% male). Median age at diagnosis was 5.6 years.

Bone Marrow Transplantation was done for 51 patients, 32 autologous & 19 cases were allogenic.

During treatment & follow up 29% of patients had relapse the median time to relapse from diagnosis was 15.5 months and 8.2% of patients had metastasis to distant organs ,the median time to metastasis was 12 months. The most common relapse was in neuroblastoma.

Up to the last follow-up , 615 patients (42.56%) died, but from 885 alive patients, 688 children (77.74%) were off treatment without any problem, 164 individuals referred to their residence cities for continuing treatment and only 33 children were still under treatment

The mean time of follow-up was 4.5 years.

The 3-years, 5-years and 10-years overall survival rates of enrolled patients were 67.7%, 60.3% and 53.8% respectively.

The highest survival was in Langerhans cell histiocytosis.

3-years event free survival was $62.5\% \pm 0.25$, the mean time of EFS was 1.2 years ± 0.6 .

In our study, 9 patients have got second malignancy.

