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Statistical Assessment of Childhood and Adolescence Cancer Survivors in Greece: Preliminary results from a follow-up clinic

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Introduction

Cancer registries (CR) present a big challenge for the Greek Health System. The lack of harmonized procedures and insufficient data collection restrict CR’s abilities for networking and participation in research.

Since September 2018, a follow up clinic operating in the University Pediatric Hematology-Oncology Unit of “Aghia Sophia” Children’s Hospital in Greece has undertaken the task of recording data from pediatric cancer survivors. A data manager was appointed responsible for the accurate collection and maintenance of data from patients receiving cancer treatment.

The aim of this effort is to make key data available for a future registry that will serve direct clinical use thus enabling health care professionals to perform efficient and appropriate long-term medical follow-up after childhood and adolescent cancer treatment completion , in Greece.

Patients

The study concerned 80 (41 male and 39 female) childhood or adolescence cancer survivors. All patients participated in a standard routine follow-up scheduled by hospital doctors in the outpatient clinic of the First Pediatrics Clinic of Athens University in "Aghia Sophia" Children's Hospital. A signed informed consent is available for all patients.

Methods

Statistical analysis is restrained to percentage evaluation because of the currently small number of participants. Data analysis was performed using the “STATA” statistics software.

Preliminary results

At the follow up clinic

- The percentage of male patients was 41(51.25%) over 39(48.75%) female.
- Demographic data revealed that the majority of patients 64(80%) are Greek , 4(5%) Half –Greek , 8(10)% Albanian, 2(2.5%) Bulgarian and 2(2.5%) were Roma. Most of the patients 42(52.5%) grew up in rural areas of the Hellenic territory, 37(46.25%) in Athens and 1(1.41%) in Albania.
- **After assessment**

Selected Cancer Types

39(48.75%) patients had **Leukemia** Of those Acute Myeloid Leukemia: 4(10.26%); Acute Lymphocytic Leukemia 35(89.74%): {B-ALL: 33(94.29%) and T-ALL :2(5.71%)}.
Lymphomas: 17(21.25%) of those Hodgkin Lymphoma: 9(52.94%) and Non-Hodgkin: 8(47.06%).
Bone Tumor 4 (5%);Ewing Sarcoma 4 (100%)
Brain Tumor:5(6.25%) of those Myeloblastoma: 2(40%) , Glioma: 2(40%) and Ependymoma: 1(20%)
Head and neck cancer:2(2.5%) of those Nasopharyngeal cancer :1(50%); Craniopharyngioma: 1(50%)
Neuroblastoma:4(5%), **Rhabdomyosarcoma**:4(5%)
Nephroblastoma:4(5%)
Teratoid tumor:1(1,25%)

Additional data

- Mean age at diagnosis was 7.5 years (min:13 months –max:16.43 years).
- Mean age of survivors in the follow-up clinic :11.41 yrs (min 4 yrs –max 21.6 yrs).
- All survivors received chemo or radio therapies in respect to the cancer type and underwent surgical intervention where needed.
- 75.81% of patients healed, 8.06% underwent surgery and 16.13% received both treatment and surgery .
- The mean treatment period was 1.63 years.
- 7 (8.75%) survivors relapsed.

Cancer types and subtypes in relation to the age of diagnosis	Age at diagnosis		
	Mean	Minimum	Maximum
Leukemia Acute myeloid leukemia Acute lymphocytic leukemia B-ALL C-ALL	5.75 13 5 5 6	0.72 11.4 0.72 0.72 1.9	15.9 15.9 14.2 14.2 10.12
Lymphomas Hodgkin Lymphoma Non-Hodgkin Lymphoma	11.8 13.9 9.1	4.6 11.3 4.6	16.5 16.5 12.9
Bone Tumors Sarcoma Ewing	7.3	3.1	9.6
Brain Cancer Myeloblastoma Glioma Ependymoma	9 10 9 6.6	6.6 9.35 9 6.6	11.1 11.1 9 6.6
Head and neck cancer Nasopharyngeal cancer Craniopharyngioma	9.3 11.9 6.7	6.7 11.9 6.7	12 11.9 6.7
Neuroblastoma	2.6	0.13	8.7
Rhabdomyosarcoma	6.88	1.78	15.44
Nephroblastoma	4.34	2.6	5.8
Teratoid tumor	7.56	7.556	7.56

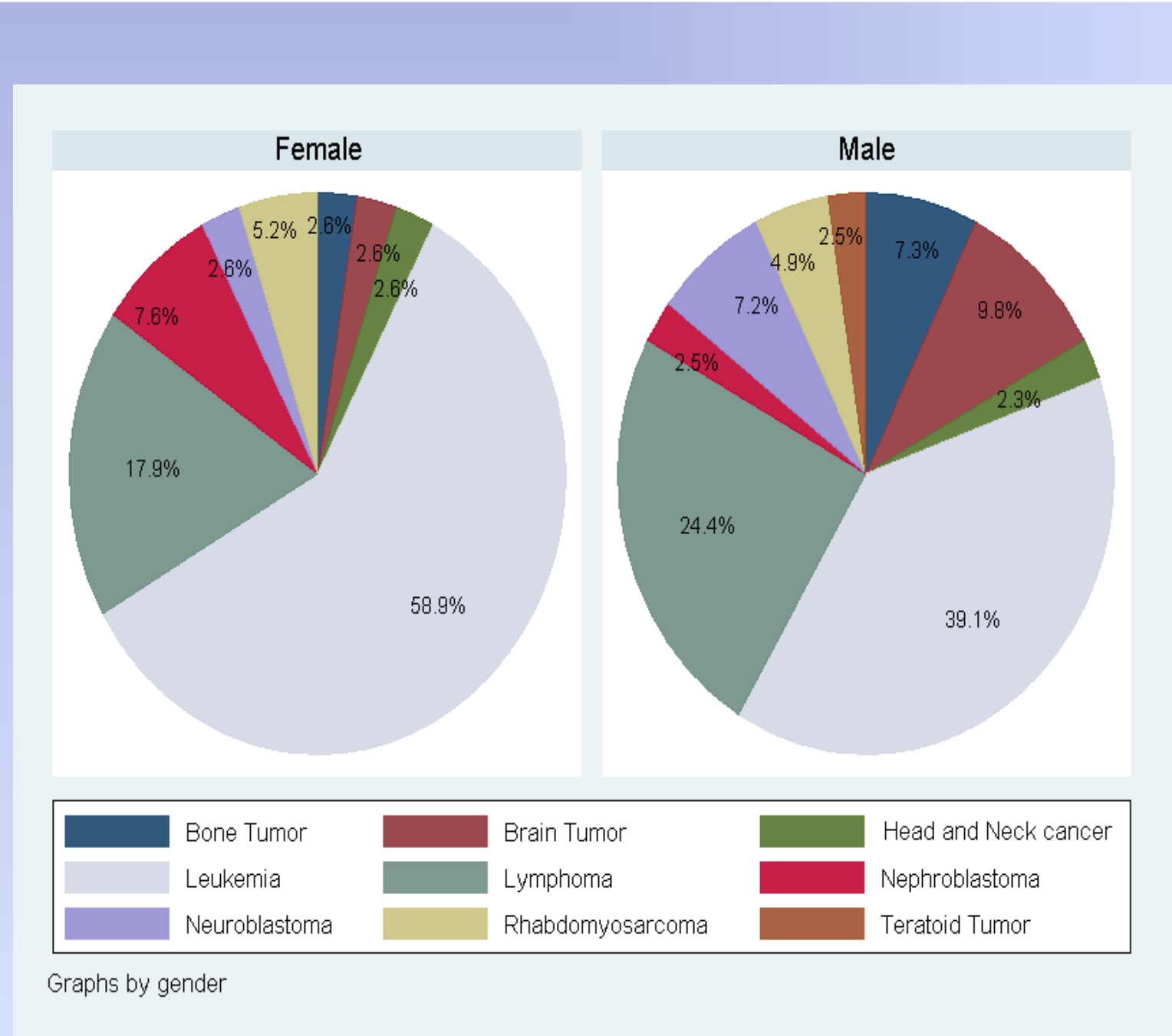

Figure 1. Overall percentages of cancer types based on sex

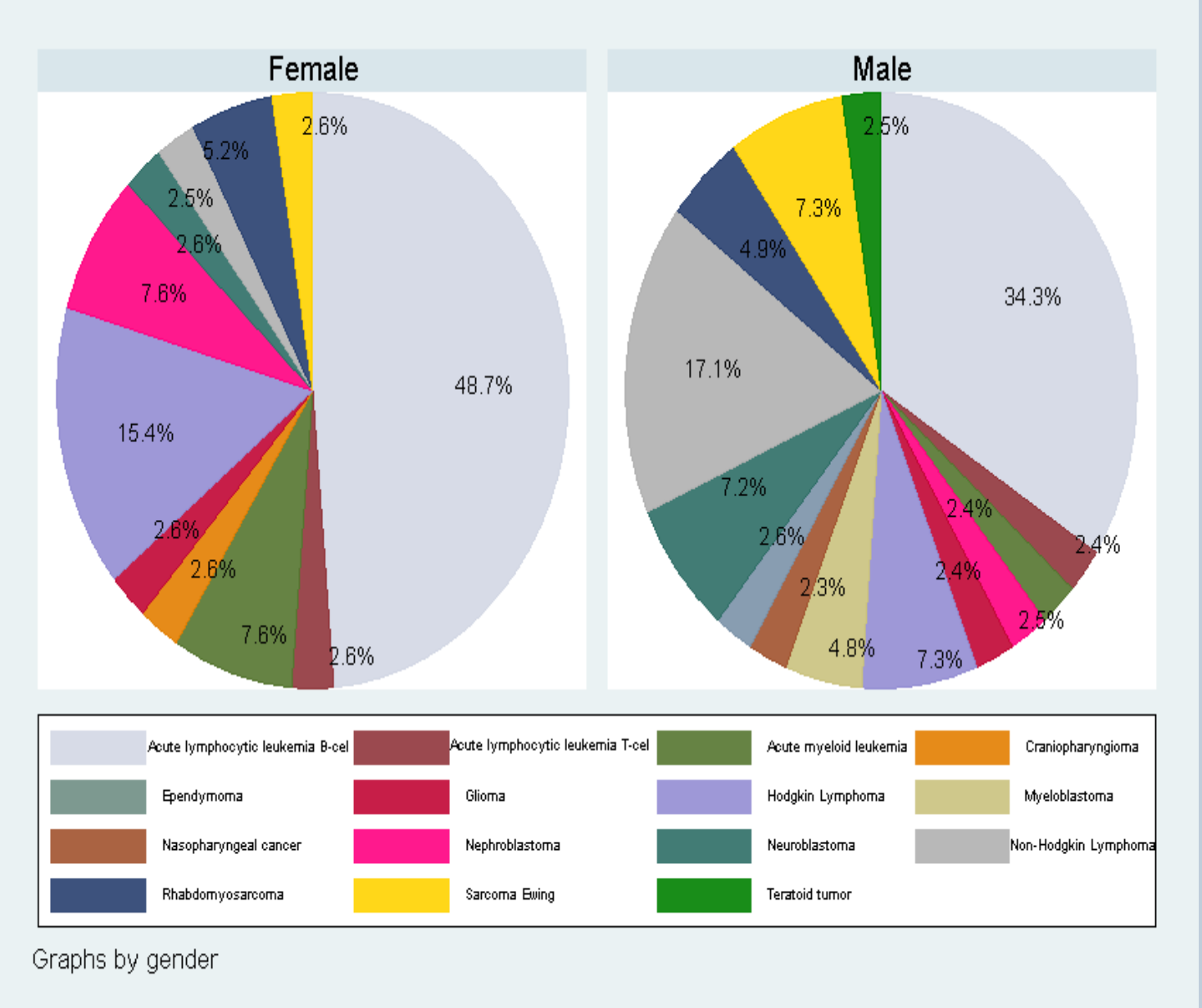

Figure 2. Percentage for each cancer sub type based on sex

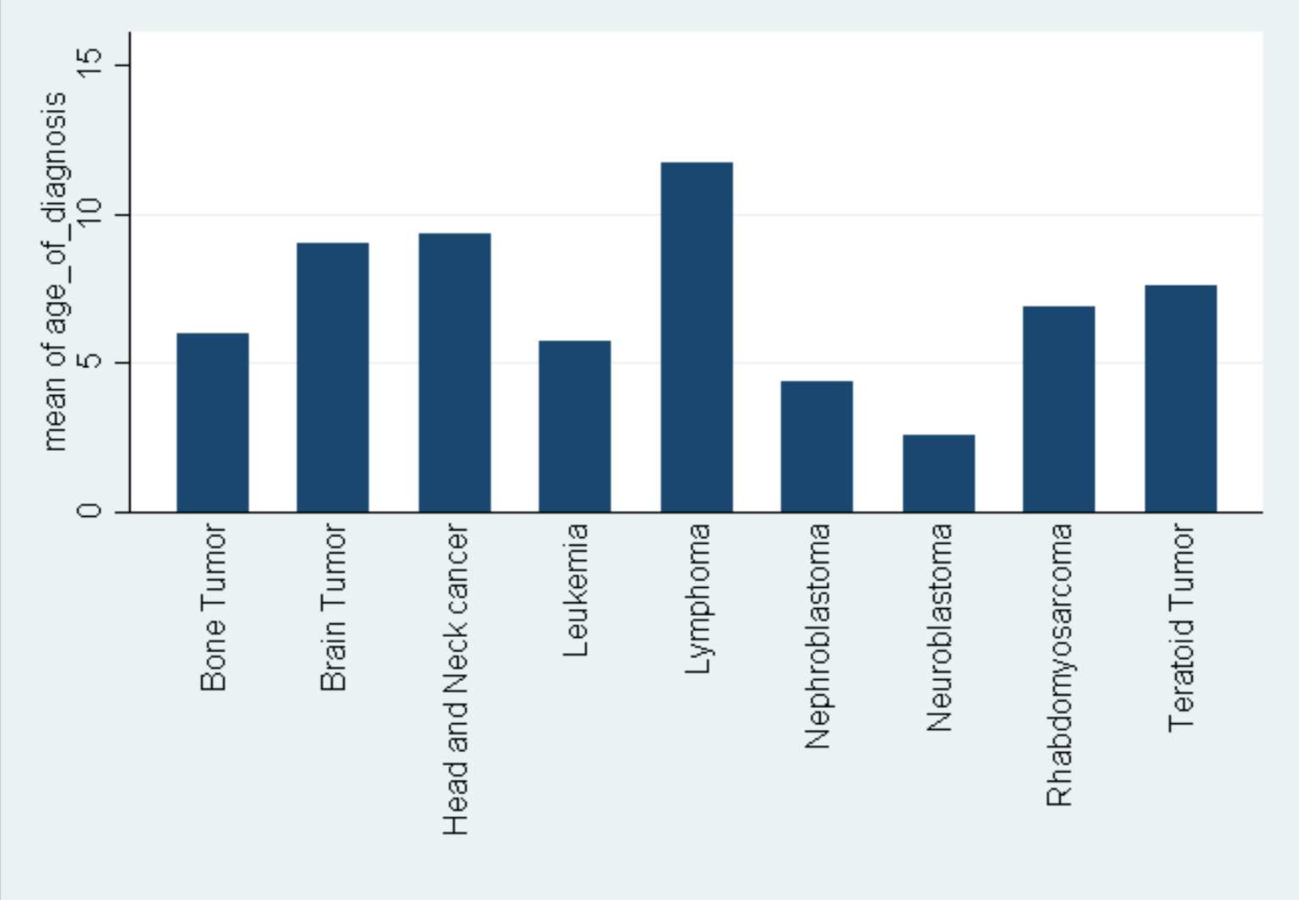

Figure 3. Mean age at diagnosis in all types of cancer

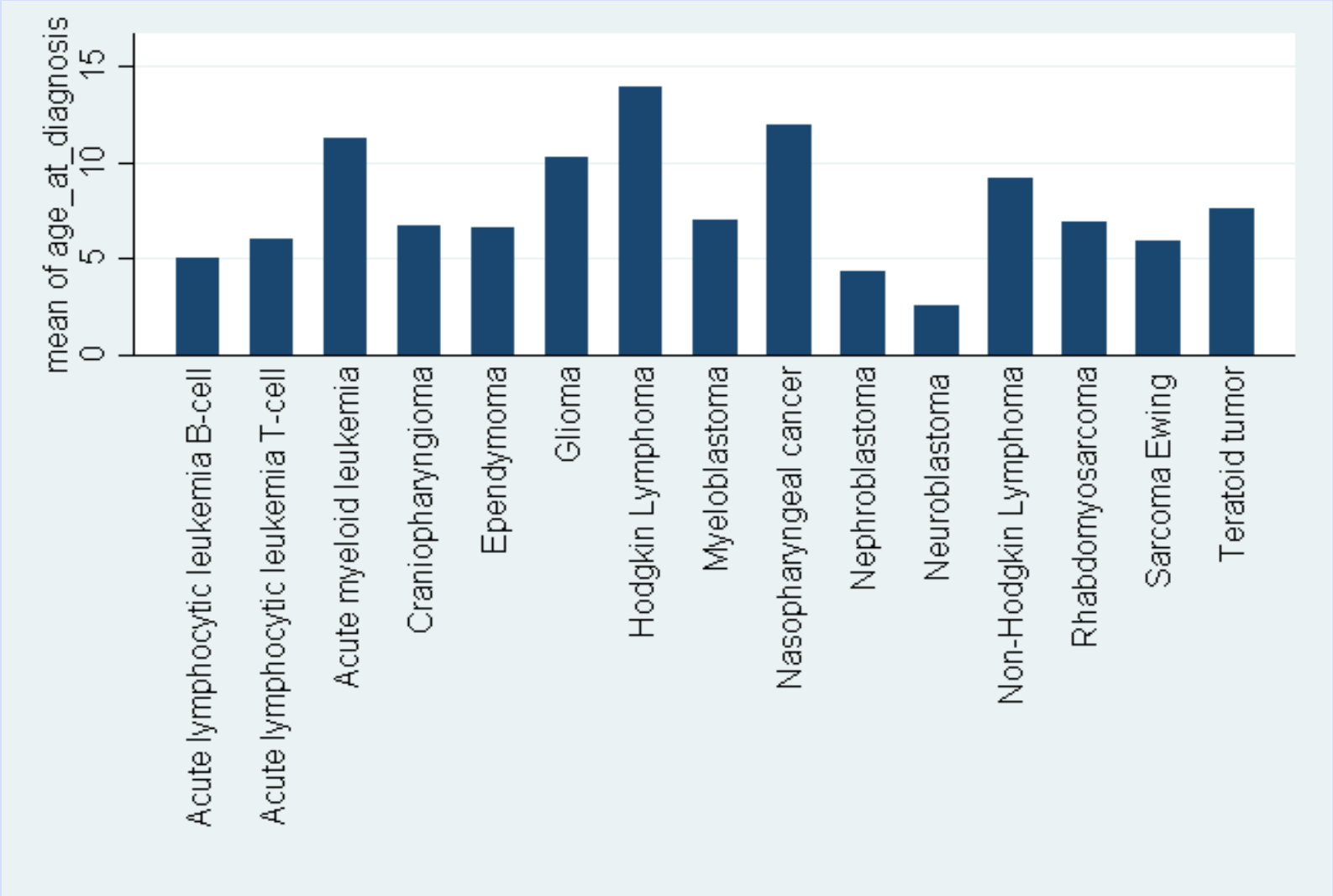

Figure 4. Mean age at diagnosis for each subtype

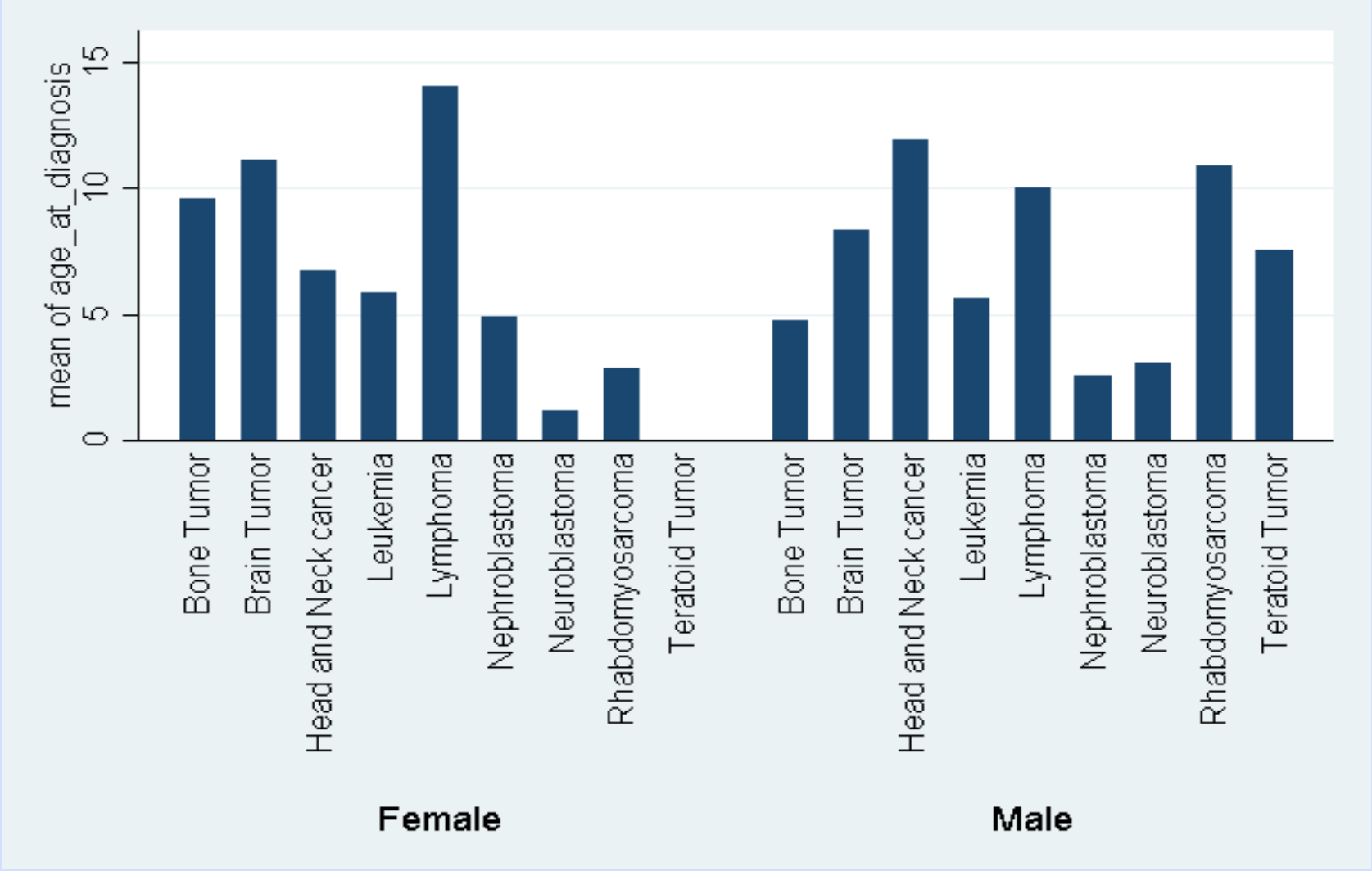

Figure 5. Mean age at diagnosis in overall types of cancer based on sex

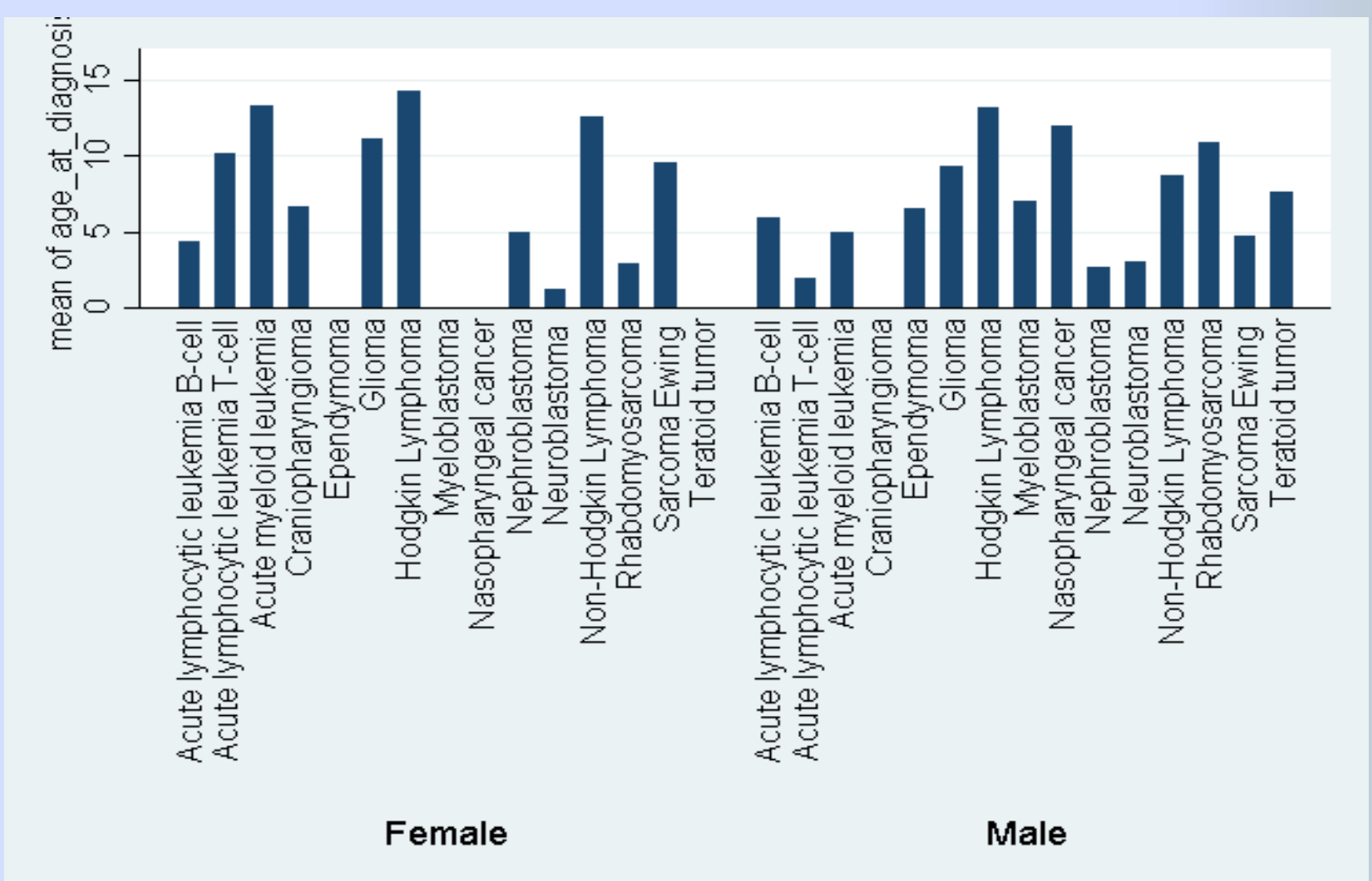

Figure 6. Mean age at diagnosis for each disease subtype based on sex

Conclusion

The present study displays the need for systematic data collection after a population-based monitoring in childhood cancer survivors in Greece. It is essential to follow up all the possible early or late effects which may present in childhood cancer patients in order to improve their quality of life.

Acknowledgments

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