

EPIDEMIOLOGICAL DATA REGARDING THE INFANT CANCER INCIDENCE IN BIHOR COUNTY DURING 1990-1995

Corina NAGY¹

¹„Babes-Bolyai”University, Cluj-Napoca, Faculty of Biology

INTRODUCTION

During the last decades the ethiological and epidemiological information about the infant cancer are obtained by various methods and the study, the inquire and the co-operation in the field are essential criteria in the infant oncology. (2, 19, 8,9).

The acute leukemia is on top of the pyramid representing 28% of the total pediatric cancer, that's why the majority of epidemiological analytic researches are focused on the leukemic patient.

Comparative analyses of the cases are used in the epidemiological studies of the infant cancer, each case being studied and reported in evolution and thus new hypothesis can be advanced.

International studies have proved that the infant cancer disease is more frequent at white population than at the coloured one. (1,26:1) and more frequent at boys patients (1,07:1), after the neonatal period the cancer is the second cause of death in the USA at children under 15 years old. There can be noticed differences between the cancer rate at different ethnical and geographic groups (1,3,10,11, 12,16,20).

Using the reported data, there can be advanced some estimations regarding the rate of incidence of different groups of cancers, the incidence on the groups' age, on the populations and on the global rate of infant population's survival.

MATERIAL AND METHOD

There have been used cancer registers from The Clinical Hospital of Children – Oradea, which collects systematically, by the help of the ONC file, data regarding the appearance and the evolution of the infant cancer; information viewing the patient, the treatment and its results.

The classification and the coding of the neoplasm followed the International Classification of Oncological Disease at Children which codes the topography and the morphology of tumor.

The data are presented in tables and graphics. In this study were included children from Bihor county with ages between 0 and 14 years old diagnosed with cancer during 1990-1995.

The population at risk – the pediatric population between 0 and 14 years old from Bihor county and the size of this population during 1990 and 1990 were taken officially from the Statistic service of The Public Health Institution Bihor (12), where the diagnosis had been confirmed histologically and/or by using the medulogramme. The cases were taken from the hospital cancer registers, the territorial register Bihor and observation files.

The incidence rate was calculated in accordance with the report between the number of the new cases appeared to a definite population, in a definite period of time and the total time of the persons at risk from that period.

The total time of the persons at risk was calculated doing the product between the population existing at the middle of the specified time period and the duration period.

RESULTS AND DISCUSSIONS

The casuistry from this interval of time registers in Bihor a number of 92 pediatric oncological cases, gathering 28 ALL cases, 5 AML cases and the rest are other types of abnormalities (Limfom Hodgkin, the Hodgkin Disease, tumors of The Central nervous system, the Wilms tumor, the neuroblastom, the bone-tumors, retinoblastom and the flexible tissue-tumors). The type of cancer and the age repartition are presented in table 1.

Table 1: The number of ALL, AML and other types of cancers diagnosed in absolute value, during 1991 and 1995 at 0 to 14 years old children in Bihor county.

Year	ALL	AML	Other types of cancer	Total/ year
1991	6		16	22
1992	4		9	13
1993	7	3	12	22
1994	6	2	7	15
1995	5		15	20
Total	28	5	59	92



Fig. 1: The number of ALL, AML and other types of cancers diagnosed during 1990-1995 at 0 to 14 years old children in Bihor county.

The age distribution of the ALL cases is almost uniform, the obtained data showing an amply casuistry in ALL, but in comparison with the precedent period, AML is represented by 5 cases appeared in 1993 and 1994.

ALL	AML	Other types of cancer	Total
28	5	59	92

The percentage distribution of these abnormalities show that the ALL are situated on the first place with 30,43% and the AML are situated far behind them with a 5,43% percentage of the total cases.

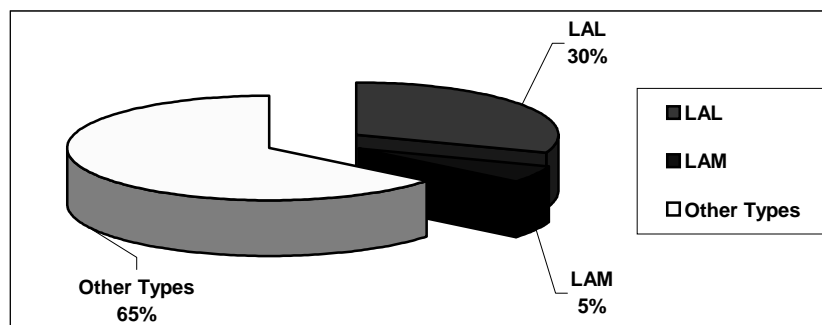


Fig. 2: The percentage distribution of ALL, AML and other types of cancer at 0 to 14 years old children in Bihor county during 1991-1995

The reference to the number of the cases regarding the 0-14 years old pediatric population during 1991-1995, shows the next rates/100000.

Table 2: The median annual rate of ALL, AML incidence and other types of cancer in Bihor county at 0-14 years old children during 1991-1995 at 100000 x persons at risk.

ALL	AML	Other types of cancer	Total
4,1	0,7	8,9	13,7

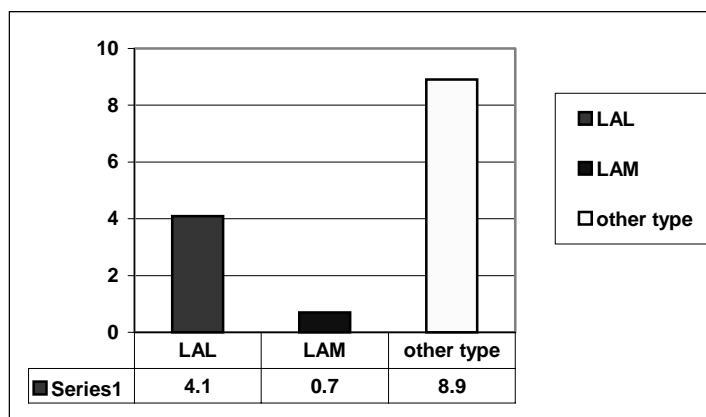


Fig. 3: The median annual rate of ALL, AML incidence and other types of cancer in Bihor county at 0-14 years old children during 1991-1995 at 100000 x persons at risk.

There can be noticed a large number of ALL whose rate grows to a higher value of 4,1 with an incidence of 4,1/100000. AML has a lower incidence of 0,7.

CONCLUSIONS

In this study I gathered epidemiological data regarding the ALL, AML and other types of cancer at children living in Bihor county during 1981-2000 using the data found in the territorial and hospital registers of Bihor county.

In Bihor county the ALL registers a percentage value of 30% during 1991-1995. The AML is once again of 5% during 1991-1995. In consequence, during 1991 and 1995 there is the highest appearance percentage of ALL and AML at children from Bihor county during 1981-2000.

The median annual rate of cancer incidence is 4,1/100000 persons x years at risk and it's very related to the international statistics report, whose value is 3,9/100000. More precise results could be obtained by means of a complex statistic analysis containing longer intervals and more patients at a national level.

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