High Incidence of Hodgkin’s Disease in Children in Lebanon

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Summary

Two hundred forty-five cases of Hodgkin’s disease obtained from two centers in Beirut, Lebanon, were studied as to sex and age distribution.

The sex incidence among adults was 69% males and 31% females, which is in agreement with the literature. The sex incidence among children below the age of 15 years was 65.5% males and 34.5% females, which is different from the 4:1 ratio reported in the literature.

Of those 245 cases, 22.45% were below the age of 15 years, which is higher than that reported from elsewhere.

Introduction

Hodgkin’s disease has been seen in all parts of the world, and no race, creed, or nationality has been spared (2). The disease occurs in all age groups from infancy to far-advanced old age (8). Its highest incidence is in young adults, with a peak between the ages of 25 and 35 years, but it seldom occurs below the age of 6 years (2).

In Lebanon, Hodgkin’s disease occurs with great frequency (11) and the incidence in the pediatric age group is higher than that reported from elsewhere.

Materials and Methods

Two hundred and forty-five cases of proven Hodgkin’s disease were obtained from the records of the American University Hospital (153 cases) and the Institut de Radiologie et de Lutte Contre le Cancer Hotel Dieu de France [92 cases reviewed by Dr. Na’mallah Ghossein (personal communication)] in Beirut, Lebanon, over the period of years 1945-1964. The presence of Reed-Sternberg cells was a prerequisite for including a patient in the current study. No attempt was made to differentiate the subgroups of paragranuloma, granuloma, and sarcoma. Most, but not all of these patients were Lebanese, as some of them came from the neighboring Near Eastern countries.

These cases were divided into those below the age of 15 years (referred to hereafter as “children”) and those 15 years and over (referred to hereafter as “adults”), and each age group was divided into males and females.

Results and Discussion

Table 1 shows the breakdown of these patients with respect to age and sex.

Among the adults 69% were males and 31% were females, which is in perfect agreement with the literature (3, 7, 10).

Among the children there were 65.5% males and 34.5% females, which is similar to the adult breakdown and lower than the 4:1 ratio reported by Hoster and Dratman (3) for children. The male children in our series accounted for 14.7% and the female children for 7.8%. Corresponding figures in the series of Shimkin et al. (6) were 11.2% and 3.2%, respectively.

Zellweger and Firzli (11) stated that the morbidity of the disease in Lebanon in the pediatric age group was at least 0.24 per 10,000 capita, which is 4 times higher than in Sweden where the morbidity (9) is 0.054. The same authors (11) found that of all Hodgkin’s disease patients admitted to the American University Hospital of Beirut between 1950 and 1953 (36 cases), 44% were below the age of 20 years and 33% below the age of 15 years. Baker and Mann (1), in a review of 65 cases admitted to Guy’s Hospital, London, between 1920 and 1937, found 10.8% to occur in children. Shimkin et al. (6) found 8.3% of a series of 254 patients to be below the age of 15 years. There are no other corresponding figures in the literature.

About 20% of our pediatric cases occurred below the age of 7 years, and there were twice as many males as females below this age.
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Table 2 shows comparative percentages below the age of 20 years and below the age of 15 years for 8 series of cases.

By applying the t-test to the 3 series for below the age of 15 years we find a statistically significant difference at the level of 20\% for Zellweger and Firzli (11) \((P \leq 0.2)\), 10\% for Baker and Mann (1) \((P \leq 0.1)\), and 1\% for Shimkin et al. (6) \((P \leq 0.01)\), which shows that the incidence of Hodgkin's disease is significantly higher in Lebanon.

References

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