Pattern of Pediatric Malignancies in Rajasthan

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Various welfare programmes for children in our country, aimed at reducing morbidity and mortality due to communicable and nutritional diseases, are bound to draw pediatrician’s attention to the problem of childhood cancer(1). There is a lack of authentic data about incidence, relative distribution and survival rates of childhood cancer, from our country(2). We are presenting pattern of childhood malignancies in Rajasthan because of paucity of such reports in literature.

Material and Methods

The present study is a retrospective analysis of 245 cases of proven childhood malignancies in the age group of 0-14 years admitted during January, 1987 to December, 1989 in SPM Child Health Institute, SMS Medical College, Jaipur. The diagnosis was based on clinical manifestations along with Hematological, Radiological and Histopathological studies.

Results

Of 39,724 admissions during this specific period; 245 (0.6%) had malignancy. On

<table>
<thead>
<tr>
<th>Malignancy</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lymphoma</td>
<td>78</td>
<td>33.2</td>
</tr>
<tr>
<td>Leukemia</td>
<td>64</td>
<td>27.2</td>
</tr>
<tr>
<td>Wilms’s tumor</td>
<td>39</td>
<td>16.6</td>
</tr>
<tr>
<td>Neuroblastoma</td>
<td>32</td>
<td>13.6</td>
</tr>
<tr>
<td>Gonadal tumor</td>
<td>14</td>
<td>5.9</td>
</tr>
<tr>
<td>Brain tumor</td>
<td>04</td>
<td>1.7</td>
</tr>
<tr>
<td>Retinoblastoma</td>
<td>03</td>
<td>1.3</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>11</td>
<td>4.7</td>
</tr>
<tr>
<td>(Soft tissue tumors, epithelial carcinomas)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Discussion

Considering that a child has 1 : 595 chance of developing cancer during first 14 years of life in USA(3), and their being a lack of authenticated, scientific reliable pediatric malignancy registry in our country(2), it became important to compare incidence of various childhood malignancies in various regions of the country.

After analysis of 245 cases of childhood malignancies, reticuloendothelial malignancies were present in 62.1% of cases,
while others (4-7) reported incidence ranging from 33.6-38.1%. After lumping Wilm's tumors and neuroblastoma together, in a group of abdominal tumors it came at second place and recorded an incidence of 30.2% in our study. A similar observation was reported by Paul et al. (5) (35.6%), while Nair et al. (4) and Pathak et al. (7) reported a lower incidence of 20.4 and 13.5%, respectively. Retinoblastoma was present only in 1.3% in this study, while a high incidence of 17.2% reported by Thaper et al. (6). CNS tumors were present only in 1.7% of cases in the present study. Thaper et al. (6) reported similar observation (2.5%) while higher incidence was recorded by others 12.1-14.4% (4,5,7). The miscellaneous group had soft tissue tumors and epithelial carcinomas.

Our study reaffirms the view expressed by reports from other regions of India (4-7) that the incidence of reticuloendothelial malignancies is highest in distribution of childhood cancer, and in our country we have a pattern of increasing trend of leukemia, medium glioma and medium lymphoma (7).

REFERENCES


Hypophosphatasia

R.P. Agarwal
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Hypophosphatasia is an autosomal recessive disease characterized by skeletal abnormalities, premature cranial synostosis, defective bone mineralization with low serum alkaline phosphatase and elevated excretion of phosphoethanolamine. There is defective regulation of alkaline phosphatase isoenzyme causing abnormal bone mineralization of growing bones. Severity of disease is variable. It may be congenital or develop later (hypophosphatasia tarda). The condition seems to be extremely rare in our subcontinent.

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Received for publication May 10, 1990; Accepted March 14, 1991