Pediatric Cancers

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Malignant disease is the second leading cause of pediatric mortality all over the world[1]. The incidence of pediatric malignant disease, currently 14/100000 or 1% of all malignant tumors[2], is believed to be increasing over the last few years. Racial, sex and significant geographic variation are described in incidence and prognosis of different pediatric tumors[3]. Childhood cancers are generally more responsive to specific treatment and two third are treated with the curative intent which is often achieved[2]. Multi-modality aggressive therapy seems to have increased survival in pediatric malignancies. Leukemia, lymphoma, Wilm's tumor (7%), retinoblastoma (3%), sarcoma (7%) and nervous system tumors (15%) are the leading tumors in pediatric practice[1,3-6]. Half of these are hematological in origin and the remaining half are solid tumors, with acute lymphoblastic leukemia being[2]. Lymphoma (T cell Non-I lodgkin's Lyniphoma and Hodgkin\'s disease) are believed to he more common in the developing world[2]. Overall survival, disease free survival, response rate to therapy, time to progression and quality of life is improved in major pediatric malignant disease over the last few decades[7]. A global over all survival rate ranges from 20-95%[2].

Considering and relating pediatric cancers to environmental or genetic factors is over simplifying the issue. The evidence with time is more in favor o genetic etiology of these tumors[2], Pediatric tumor diagnosis being mostly symptoms and signs related, is detected quite late. The prognosis is related to tumor burden at the time of diagnosis. An early diagnosis is thus over emphasized, to achieve a better outcome of treatment offered.

Pediatric population is of significantly higher proportion in developing countries due to a much higher population growth rate, at places about half of the total population. Illiteracy, lack of financial resources, lack of knowledge about disease, inadequate and inaccessible health care facilities and non-availability of sophisticated and expensive diagnostic facilities are the major problems encountered leading to a late disease diagnosis. In a good number of cases patient passes away without an accurate diagnosis, as majority of population is in under developed rural areas and post mortem facilities are not available or denied. This is reflected as a much poor prognosis in a similar disease in developing world. On the other hand successthlly treated pediatric patients in clinical remission, either in developing or developed world, are vulnerable to a second malignancy due to an expected longer survival and exposure to potentially oncogenic radiation or chemotherapy.

There obviously is a need to improve specialized health care in pediatric Oncology with at least one well-equipped unit at district level. Health education should be part of curriculum and community health services should be a priority and stressed upon. Training in pediatric Oncology is an important area which needs to he addressed, if an ideal pediatric Oncology service is to be established in the health care. The cost of treatment is one most important issue to he dealt with, as majority of patients in large overburdened families in developing world can not afford the treatment required.

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