Assessment of Late Effects in Childhood Cancer Survivors: A Cross Sectional Study

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To the Editor: Improved survival rates of childhood cancer have led to increased recognition of late effects of therapy [1]. The present study evaluated the profile of adverse long term effects in children diagnosed with hematological or solid tumor before the age of 18 y at our centre and completed at least two years post cancer therapy.

Records of 62 eligible children who attended the long term follow-up clinic during the study period were analysed. A total of 83 late effect events were identified by clinical assessment and specific organ function test based on therapeutic exposure in each child [2]. The median age at follow-up and duration of follow-up were 10 y (4–23) and 4 y (2–9) respectively.

Growth and nutritional status were assessed at diagnosis and follow-up. Twenty eight children (45.2%) were found to be underweight for age out of whom 15 (53.6%) had normal status at baseline. Seven children (11.3%) had overweight-obesity and six (9.6%) had short stature post treatment, all of whom were normal at diagnosis. There was no statistical difference between hematology and solid tumors in terms of nutritional status. Six (9.7%) had early or delayed puberty with normal hormonal studies.

Twenty two children underwent spirometry and two (9.1%) were found to have restrictive pattern. IQ assessment was performed in 19 and five (26.3%) were found to have mild to borderline mental retardation. Neurological examination was normal in all these children.

Seven (35%) of the 20 children who underwent thyroid function testing had elevated TSH with normal free T4 levels suggestive of subclinical hypothyroidism. Three (9.3%) among the 31 tested had bone mineral density scores

suggestive of osteopenia. The incidence of other long-term effects was minimal.

A significant proportion of children had late effects of treatment, although those causing major disability were few. Most were asymptomatic and related to nutritional status and sub-clinical hypothyroidism. In the absence of a suitable control group, the adverse events cannot be conclusively imputed to cancer therapy. Also the population was younger and duration of follow-up was shorter compared to other studies [3–5]. The high frequency of asymptomatic effects and those amenable for intervention underscores the importance of continuing assessment.

Compliance with Ethical Standards

Conflict of Interest None.

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