Abstract

BACKGROUND: Early diagnosis and timely initiation of definitive treatment in childhood cancers is an important determinant of outcome. Unfortunately, prolonged time intervals from symptom onset to presentation and diagnosis of childhood cancers remain a problem in developing countries. OBJECTIVE: To determine the time intervals from onset of symptoms to diagnosis and initiation of definitive treatment in children with cancer in KNH and the associated factors. RESEARCH DESIGN: This was a hospital based retrospective study. SUBJECTS: The study included 146 paediatric oncology patients 7 months to 13 years admitted in Kenyatta National Hospital with established diagnosis of cancer and on definitive treatment. STUDY PERIOD: The study was conducted between June 2011 and January 2013. METHOD: Structured questionnaires administered to caretakers were used to obtain socio-demographic data and care seeking information including time intervals from onset of symptoms to admission at KNH for the present illness. Additional data related to the illness and its management were obtained from referral notes and clinical records retrieved at KNH. Patient and caretaker characteristics were summarized using appropriate descriptive statistics including means (SD), medians (IQR) and frequencies. Non parametric tests (Kruskal-Wallis) were used to compare median time intervals according to different levels of patient or caretaker factors. RESULTS: Out of the 146 patients recruited 87 (59.6%) were males, male to female ratio of 1.5:1. The average age of paediatric cancer patients was 5.5 years (SD 3.1). Leukaemia was the most common diagnosis, reported in 62 (42.5%) cases. Solid tumours accounted for 59 (40.4%) and lymphomas accounted for 25 (17.1%) cases. The median time interval from onset of cancer symptoms to diagnosis was 14.9 (IQR 8-26) weeks and the median duration before definitive cancer treatment was initiated was 1.3 (IQR 0.7-2.3) weeks. The overall median time interval from onset of symptoms to initiation of definitive cancer treatment was 16.9 (IQR 10.2-29.7) weeks. The child’s age independently predicted time interval between onset of symptoms and establishment of a definitive diagnosis after adjusting for the effect of cancer diagnosis, sex and number of siblings. Median time intervals for different age groups were 11 weeks for children <4 years, 15 weeks in the 4-8 year age group and 20 weeks in the 9-13 year age group. CONCLUSION: Time intervals from onset of symptoms to diagnosis of childhood cancers in KNH, Kenya, is comparable to other developing countries but tends to be longer compared to more developed countries. Patient age is an independent predictor of time intervals from onset of symptoms to diagnosis of childhood cancers. RECOMMENDATIONS: The education of parents on danger signs of childhood illness and the importance of early presentation at health facilities is recommended to reduce parent delay. The education of physicians on the need for a high index of suspicion of cancer and prompt investigation of suspicious clinical features for early referral and initiation of definitive treatment is strongly indicated.