Theme: **Cancer**

Contrast between incidence of childhood and adolescent cancers: Using a population based cancer registry, Kyadondo County, Uganda: 2009 to 2014.

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BACKGROUND: Cancer is relatively rare in childhood compared to later in life. In high-income countries, haematological malignancies are the most common, then brain tumours and solid tumours. World Age-Standardized Incidence Rates in Ireland averaged 142 cases per million children per year, higher than European average and lower than US average. In Africa, distribution of childhood cancers is quite similar, commonest being Kaposi sarcoma (KS), Burkitt's lymphoma, retinoblastoma, leukaemia and Hodgkin Lymphomas (HL). Among adolescent in Zimbabwe, leukaemia has highest incidence rates then osteosarcoma, Non-Hodgkin lymphoma (NHL) and KS.

This study sought to describe the incidence of cancer among children and adolescents in Kyadondo County, Uganda from 2009 to 2014 which is necessary for planning of cancer control programs.

METHODOLOGY: Descriptive cross-sectional study which involved review of data from Kampala Cancer Registry that gathers information on cancers diagnosed within Kyadondo County (formed by Kampala and Wakiso districts) and analysed using STATA 13. From 2014 Uganda population census, Kyadondo County had a population of 3,523,910 (32.2% children and 10% adolescents). Study population was children (0-14 years) and adolescents (15-19 years) diagnosed with cancer from January 2009 to December 2014.

RESULTS: 752 participants, 71.7% (n=539) children and 29.3% (n=213) adolescents were diagnosed with cancer. 56.4% (n=304) of children were male whereas 50.2% (n=107) of adolescents were female. Mean age of the children was 6.9±4.25 and of adolescents was 17.1±1. World Age-Standardised Incidence rates per million in Uganda were 124 cases for children, adolescents (51 cases) and 0-19 years age category (175 cases). Of cancers diagnosed in children, HL (21%), KS (12%), nephroblastoma (9%), retinoblastoma (7%), unspecified malignancies (11%) and others (40%). Of cancers diagnosed in adolescents, KS (20%), NHL (18%), HL (8%), Chronic Myeloid leukaemia (6%) and other malignancies (41%).

CONCLUSION: The spectrum of cancers in adolescents reflects a transition. Carcinomas which are so prevalent in adults occur but at lower frequencies in adolescents. Study results are comparable to others studies indicating that nephroblastoma and retinoblastoma were common among children and not adolescents. Leukaemia and lymphomas cut across both children and adolescents.

RECOMMENDATIONS: New prospective studies should be done on children and adolescent cancers covering a wide population size.

Key words: Childhood cancer, Population based cancer registry, Adolescent cancers