Audit of Deaths in a Pediatric Oncology Unit in Sub-Saharan Africa

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Introduction

In high-income countries, about 20% of children with cancer die and cancer is the second leading cause of death in children. This rate remains stable, opening the way to clinical research to identify new therapeutic alternatives. Reported mortality rates are around 80% in low- and middle-income countries. African publications on the mortality of children with cancer are rare. In the pediatric oncology unit of the Treichville university hospital in Abidjan, the overall survival of children with cancer reported in a population of 331 cases recruited from 1995 to 2004 was 9.4% and the mortality rate during the study period was 39.3%. We carried out an audit to identify the causes of death of hospitalized children and to improve the survival of patients in the pediatric oncology unit.

Methods

Our center is a benchmark oncology center with medical and surgical oncology. All departments regularly treat patients in hospital. About 200 new pediatric cancer patients are seen each year and the common cancers are lymphomas, leukemia, retinoblastoma and Wilms tumor.

This observational and descriptive study concerned children aged 0 to 14 years diagnosed with cancer (treated or not with a specific treatment) and died in the oncology unit of the pediatric service of the University Hospital of Treichville on January 1, 2010 as of December 31. , 2015. This unit is a member of the GFAOP network. The collection of information for each death was based on data from the hospital register and the patient's medical file.

The cancer stages were established using the Toronto guidelines. Sociodemographic, clinical and therapeutic variables, delays (diagnosis, treatment) and causes of death were analyzed. The diagnostic delay was the time between the first symptoms and the diagnosis. The delay in treatment was the time taken to start treatment after diagnosis. Deaths occurring within 90 days of cancer treatment without tumor progression were considered treatment-related mortality. The state of cancer at the time of death was recorded for all deaths.

Controlled cancer in solid tumors was defined as clinical and radiological absence of disease for at least 1 month; for hematological malignancies, in addition to the clinical and radiological response, the hematological response was also considered to document the same. Non-responders and partial responders were grouped into uncontrolled malignancies. The cause of death was determined from the source documents and the immediate cause mentioned was taken into account for the analysis. The cause of death, when not mentioned, has been deduced from clinical and paraclinical data for the last two weeks of life.

Statistical analysis was performed using the SPSS 15.0 software (SPSS Inc., Chicago, IL, USA), and included a description of the demographic and clinical parameters. The confidentiality rules of the International Agency for Research on Cancer (IARC 2004/03) were applied. This work was done with the agreement of the scientific director of the hospital.

Results

Six hundred and eighty-one patients were admitted during the study period, including 249 deaths, resulting in a mortality rate of 36.5%. This study included 139 files, 126 files had a diagnosis at the time of death.

Thirteen patients with clinical and radiological signs of cancer died before performing the histological examination. The basic characteristics of the study population are presented in.

Conclusion

This study has made it possible to establish the mortality profile of childhood cancers in our department. Most deaths are due to cancer. Actions promoting early diagnosis and rapid access to treatment will reduce the mortality rate.