

## Children Acute Leukemia in Madagascar

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Cancers are rare in children but are major cause of mortality and morbidity [1]. Acute leukemias are a set of malignant proliferations resulting in the accumulation in the marrow, blood and possibly other organs, progenitors of blood cells of myeloid or lymphoid nature ("blasts"), which have totally or partially lost their ability to differentiate.

They represent nearly 30% of childhood cancers [2]. In Madagascar, these relatively rare affections. They represent 63% of the cases of hematological malignancies [3] and concern child in 1 case out of 2 [4].

Here we describe epidemiological, clinical and cytological aspects of 122 cases of acute leukemia in children aged 0-15, observed between January 2014 and December 2017 in our hematology laboratory at the Joseph Ravoahangy Andrianavalona Antananarivo Madagascar University Hospital.

In our series, the mean age was  $7.48 \pm 4.05$  (range 2.5 months to 15 years) with a male predominance (ratio = 2.21).

The circumstances of discovery were infectious syndrome (45.2%), anemic syndrome (45.1%), hemorrhagic syndrome (13.9%) and tumor syndrome (43.4%). Study of the blood count showed anemia in 56.6% of cases, leukocytosis (33.9%), neutropenia (22.3%) or even agranulocytosis (12.3%), thrombocytopenia (67.2%). These abnormalities are sometimes associated with blood blastosis (17%) and/or myelemia (9%).

In our laboratory, diagnosis of acute leukemias is cytological. We use FAB (French - American - British) group criteria for classification. Regarding cytological type, 98 cases (80.3%) were of lymphoblastic type Acute Lymphoid Leukemia (ALL), 21 cases (17.2%) were of the myeloid type Acute Myeloid Leukemia (AML) and 3 (2.5%) were biphenotypic. Eighty-nine percent of all ALL were ALL 2. For AML, we found in order of frequency M7 (n = 6), M3 (n = 5), M4 (n = 3), M1 (2), M5 (n = 2), M (n = 2) and M6 (n = 1).

In Madagascar, prognosis of acute leukaemias in children is often pejorative. In addition, management of certain forms of childhood cancer whose ALL has been significantly improved thanks to the protocols and the sending of drugs, set up by the GFAOP (Franco-African Group of Pediatric Oncology).

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### Conflict of Interest

None declared.

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