Acute Leukemia with Chromosome Phi (+) of Child

Y.Asmama, M.Kababri, M.Khourassani, A.Kili, L.Hssissen, M.Khattab
Pediatric oncology departement of the Children's hospital of Rabat

INTRODUCTION

The Philadephia chromosome (Phi) results from a reciprocal translocation between the chromosomes 9 and 22 (1), it is an important prognostic marker (2).
Acute lymphoblastic leukemias (ALL) Phi positive account for less than 5% of the child's ALL, and acute myoloblastic leukemias Phi positive is even less frequent.

MATERIALS AND METHODS

In order to determine the epidemiological and clinical characteristics of the patients affected by acute leukemia with philadelphia choromosom positive, as well as the strategy for the management of this pathology, we conducted a retrospective study in the Pediatric Oncology Department of the Children's Hospital of Rabat for a period of 04 years between January 2013 and September 2016.
All children beneficed of a medullary karyotype which demonstrate a translocation t(9,22).
The treatment consisted on a chimiotherapy according to the MARALL 2006 and AML-MA 2011 protocols, in association with tyrosine kinase inhibitors of the first generation (Imatinib).

RESULTS

We collected over the study period, 07 cases of acute leukemia chromosome philadelphia positive, including 5 acute lymphoblastic leukemia and 2 cases of acute myeloblastic leukemia. There were 5 girls and 2 boys, with a female predominance, with an average age of 9.5 years and extremes ranging from 5 years to 12 years at the time of diagnosis.
In our study, we noted in addition to the presence of translocation (9,22), the presence of a trisomy 8 with inversion of chromosome 7 in a child, a duplication of the Philadelphia chromosome in three cases, the presence of only Chromosome Philadelphia in two cases, the presence of a trisomy X, 6 and 21 in one case. This was a type B LAL with expression of CD13 in all patients with LAL and co-expression of CD33 in 2 cases of LAL.
In our work, all children showed a very high leukocytosis at the time of diagnosis with a rate of more than 70 000WC/mm except one, which is in line with the data found in the literature. In our context, all children in whom the diagnosis of Acute Leukemia Phi + is established, Imatinib is started at the same time as conventional chemotherapy and continued to the end, with complete clinico-biological remission in 60% of the patients. With a 24-month follow-up in general.

CONCLUSION

The acute Leukemias Phi + of the child represent acute cytogenetic leukemias, with a reserved prognosis and limited survival. The introduction of TKIs into the treatment has led to serious advances in the management of this disease.

REFERENCES

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