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Etiologies of Megaloblastic Anemia in a Pediatric Hospital

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Abstract : Introduction: Megaloblastic anemia (MA) is rare in children. The diversity of its etiologies can lead to misdiagnosis and may, therefore, delay the treatment. The aim of this study was to describe the epidemiological and etiological characteristics of children followed for MA at the Tunis children's hospital. Methodology: This is a retrospective study over a period of 25 years of all cases of MA in children in the Children's Hospital of Tunis. The diagnosis of MA was confirmed by myelogram in all patients. Results: We collected 29 observations, with an incidence of 1.2 cases/year and a sex ratio of 1. Sixty percent of the children were aged between 3 months and 2 years. The consultation time was between 15 and 30 days in a third of the patients. The clinical examination showed hypotrophy in 13% of cases, hepatosplenomegaly in 6% of cases, neurological or neurosensory damage in 23% of cases, and cardiac damage in 10% of children. MA was associated with thrombocytopenia in 65% of cases and leukoneutropenia in 24% of cases. One in 5 children had pancytopenia. The etiologies were mainly thiamine deficiency, Immerslund disease (20%), nutritional deficiency (13%), and Biermer anemia (13%). One of the patients presented an MA revealing visceral leishmaniasis. The outcome under vitamin B12, the dose of which was adapted to each etiology, was favorable for all patients. Conclusion: MA is rare in children with multiple etiologies that are mainly dominated by hereditary conditions and nutritional deficiencies, mainly in vitamin B12. The association with visceral leishmaniasis seems to be a particularity in our country not reported in the literature.

Keywords : megaloblastic anemia, children, vitamin B12, anemia
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