3/ Prevalence and risk factors of anti-FVIII inhibitors in children with hemophilia A: Experience of the Sétif pediatric center

M. Messasset, B; Bioud

• **Introduction:** The occurrence of an inhibitory antibody against FVIII represents the major complication of replacement therapy with FVIII concentrates in hemophiliacs A. The appearance of inhibitors is multifactorial due to the interaction, or even synergy, of many risk factors.

The objective of our study is to determine the prevalence of the anti-FVIII inhibitor in children with hemophilia A treated and followed in our center, to analyze the risk factors associated with the development of anti-FVIII inhibitors and to compare our results to those of the literature.
Material and methods: Our type study involved 84 children with hemophilia followed in the pediatric department of Sétif during the period from 1 January 2016 to 31 December 2021.
Results: Inhibitors were diagnosed in 7/84 hemophiliacs (8.3%) of all cases in the series, exclusively in hemophilia A(11%) of all hemophilia A cases: 5 severe and 2 minor, with a median age of development of 4.64 years**.** 100% of the cases were strong responders, with a minimum inhibitor titer of 12 Bethesda units and a maximum inhibitor titer of 606 Bethesda units.
The circumstances of discovery of inhibitors were therapeutic inefficacy in 72%. The risk factors found were severity found in 75% of cases, family history found in 14.8%,
intensive treatment which was found in 86% of cases and genetic abnormalities found in 8.3% of cases.

Conclusion: The management of a hemophiliac A with an inhibitor poses a problem of management: control of hemophiliacs and cost of treatment. Screening for anti-FVIII during the first 50 JCPAs is crucial for early diagnosis of anti-FVIII and early onset of ITI, which remains the only curative treatment. Our study, while retrospective and involving a relatively small sample of patients, has the advantage of reporting genetic data on risk factors.