

# Oral condition improving with dental extraction in two children with congenital bleeding disorders in Madagascar

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## Background and objective

In children with bleeding disorders, bloody acts require special care. This work reports the management before, during and after dental extraction in two children with bleeding disorders.

The aim of this study is to draw the attention of practitioners on how to manage any dental extraction when necessary for such children.

## Case reports

A 8 years old boy, severe hemophilia A (factor VIII under 1%) was admitted in the Surgical Resuscitation Department of the Hospital CHU-JRA in Antananarivo Madagascar. He needed a preparation for a tooth extraction after scaling. The child was yet hospitalized twice for gingival bleeding. In lack of factor VIII concentrate, the child received a transfusion of three bags of fresh frozen plasma (FFP). The day before the extraction, antifibrinolytic treatment with tranexamic acid at a posology of 10mg/kg per day was instituted. After scaling and dental extraction, a second transfusion with two bags of FFP was made in order to maintain the level of factor VIII. The same dose of tranexamic acid was carried on for 5 days. The level of factor VIII after transfusion was 10%. There were no postoperative complications.

A 6 years old girl, suffering from congenital afibrinogenemia was admitted in the same Surgical Resuscitation Department to get teeth extracted after scaling. She was yet hospitalized once for gingival bleeding. Her fibrinogen level was not measurable (<0.1 g/l); prothrombin time (PT) and partial thromboplastin time with Activator (aPTT) are indefinitely prolonged. In lack of fibrinogen concentrate, transfusion of three bags of FFP before and two bags after oral surgery was performed to obtain a normalization of PT and aPTT. The intervention was successful without postoperative complications.

## Discussion

The severity of bleeding events depends primarily on the size of the coagulation factor lack. The rate of coagulation factor for both patients was known less than 1%. In any cases, the oral condition improving that may require dental extractions is essential to prevent periodontal diseases, sources of hemorrhage by gingival bleeding. The patients had both recurrent gingival bleeding and needed scaling and removing plaque retention factors by extraction of hopeless teeth. Normal hemostasis by increasing the rate of defect factor was required before, during and after these dental extractions. Concentrates of coagulation factors were not available, an alternative substitution was provided by fresh frozen plasma transfusion, with biological control of time clot.

## Conclusion

In Madagascar, as in other developing countries, plasma infusion is the cheapest effective way to prevent bleeding in these diseases. Indeed, the plasma has shown its effectiveness in our two patients. An additional antifibrinolytic treatment with tranexamic acid kept the fibrin clot. Both patients had no bleeding problem following scaling and dental extraction. However, further studies should be conducted to determine the exact amount of plasma to infuse.

## References

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