

Endovascular intervention for intracranial aneurysm with dual anti platelet therapy in a patient with severe hemophilia A

Intervención endovascular de un aneurisma intracraneal con terapia antiplaquetaria dual en un paciente con hemofilia A grave

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We describe the case of a 41-year-old man with severe haemophilia A without inhibitors, who presented with mild headache and blurred vision.

The patient was referred to a neurologist, who requested cerebral magnetic resonance angiography, which revealed a 4.5-mm ophthalmic artery aneurysm. An endovascular stent placement by interventional radiology and dual antiplatelet therapy were proposed.

The patient was receiving tertiary prophylaxis with a standard half-life recombinant factor VIII. Despite his severe arthropathy, he had a very active lifestyle, performing regular training that combined muscle strength training and CrossFit sessions.

Given his bleeding disorder and the additional bleeding risk associated with dual antiplatelet therapy to prevent stent occlusion, and because there are no specific recommendations regarding FVIII levels for this clinical scenario, we decided to follow adaptations of the European Society of Cardiology recommendations on the management of acute coronary syndromes in patients with haemophilia.¹

He was switched to a pegylated extended half-life recombinant factor VIII (EHL), targeting a trough level between 20 and 30%. A dose of 3,500 IU (44.8 IU/kg; patient weight, 78 kg) twice weekly was calculated with the aid of the WAPPS HEMO tool. Pharmacokinetic assessment was performed after the switch, confirming a trough level of 22% for 91% of the time and an area under the curve of 4,230 IU/h/dL. Dual antiplatelet therapy was started 7 days before stent placement and maintained for 4 months thereafter.

The patient experienced 2 spontaneous bleeding episodes: haemarthrosis of the left elbow (a joint with arthropathy), treated with 4 additional daily doses of FVIII in addition to regular prophylaxis, and haemarthrosis of the right knee (a joint with arthropathy), which resolved 48 h after receiving 2 additional doses of EHL FVIII.

After the initial 4 months of dual antiplatelet therapy, following a new dose adjustment with the aid of WAPPS HEMO to 2,500 IU twice weekly (44.6 IU/kg; patient weight, 56 kg), he remained at a trough level between 10 and 15% during the year on single antiplatelet therapy

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with acetylsalicylic acid, with no bleeding episodes during that period.

Discussion

Severe factor VIII deficiency poses an increased risk of joint bleeding and bleeding from other sites. This is partially prevented with contemporary prophylactic treatment, which achieves minimum levels around or above 1 IU/dL, thereby converting the severe phenotype into a moderate one.² However, the appropriate minimum level needed to prevent bleeding in patients with additional bleeding risks, for example, in patients requiring antiplatelet or anticoagulant therapy, is not well established.³

Data are scarce, although clinical practice guidelines exist for the treatment and management of coronary syndromes that are extrapolated to patients with haemophilia, providing advice on minimum factor levels that are sufficiently safe to allow the use of antiplatelet therapies, anticoagulants, or both, to prevent spontaneous bleeding.¹ While these guidelines focus on myocardial infarction, atrial fibrillation, and other related comorbidities, they do not address cerebral aneurysm.

Taken together, these clinical scenarios represent a major challenge for physicians and require discussion and management by a comprehensive team including a haematologist experienced in haemophilia, a neurologist, an intensive care provider, and an interventional radiologist.

The clinical outcome in our patient was satisfactory, with no major breakthrough life-threatening bleeding, supporting the idea that, regardless of the underlying condition for which dual antiplatelet therapy is indicated, an FVIII level of 20–30% appears to be safe to cover the bleeding risk associated with dual antiplatelet therapy, according to adaptations of the European guideline recommendations.

We decided to switch the patient to an extended half-life product given the higher minimum level that could be achieved with twice-weekly administration.

Conclusions

Further information on the management of cerebrovascular and cardiovascular diseases in patients with haemophilia will be required in the near future, given

that this is an ageing population and an increase in these comorbidities is expected.

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Conflicts of interest

The authors declared no conflicts of interest whatsoever.

Ethical considerations

Protection of humans and animals. The authors declare that no experiments were performed on humans or animals for this research.

Confidentiality, informed consent, and ethical approval. The authors obtained approval from the Ethics Committee for the analysis of routinely obtained and anonymised clinical data; therefore, informed consent was not required. The relevant recommendations were followed.

Declaration on the use of artificial intelligence. The authors declare that they did not use any form of generative artificial intelligence in the writing of this manuscript.

References

1. Klamroth R, Ay C, De Moerloose P, Fontana P, Wyndiga J, Astermark J, et al. Applicability of the European Society of Cardiology Guidelines on the management of acute coronary syndromes to older people with haemophilia A. A modified Delphi consensus by the ADVANCE Working Group. *Haemophilia*. 2023;29(1):21–32.
2. Srivastava A, Santagostino E, Dougall A, Kitchen S, Sutherland M, Pipe SW, et al. WFH Guidelines for the Management of Hemophilia panelists and co-authors. WFH Guidelines for the Management of Hemophilia, 3rd edition. *Haemophilia*. 2020;26(Suppl 6):1–158. doi: 10.1111/hae.14046. Erratum in: *Haemophilia*. 2021;27(4):699.
3. Schutgens REG, Jimenez-Yuste V, Escobar M, Falanga A, Gigante B, Klamroth R, et al. Antithrombotic treatment in patients with hemophilia: an EHA-ISTH-EAHAD-ESO Clinical Practice Guidance. *Hemasphere*. 2023;7(6):e900.