Treatment with a Von Willebrand factor concentrate almost devoid of FVIII in patients with von Willebrand disease on antithrombotic therapy

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INTRODUCTION AND OBJECTIVES

Von Willebrand Disease (VWD) is the most common congenital bleeding disorder. There is either quantitative or qualitative defect on Von Willebrand Factor (VWF).[1]
Currently, because of multiple treatment options and quality of them, there is a better life expectancy [2]. This improvement makes more likely the appearance of certain clinical conditions which requires concomitant antithrombotic and anticoagulant therapy[3].
Patients with blood dyscrasias may have clinical situations requiring antithrombotic treatments. Bleeding complications are a challenge in this kind of patient.
Otherwise, Guidelines in bleeding disorders management are relevant in general population [4] but there is limited scientific information for these specific cases. The guidelines for this kind of patients are based on experts recommendations[5].
In people without a bleeding disorder, the risk of bleeding while receiving antiplatelet or anticoagulant dual therapy is from 11.2% /year [6] to 16.1%-21.9%/year [7] respectively. This risk could be dramatically increased in patients with blood dyscrasias.
We present in this poster the clinical follow-up of two patients with VWD prophylactically treated with a VWF almost devoid of FVIII (Wilfactin® - LFB Biomedicaments) while receiving antithrombotic/anticoagulant therapy.

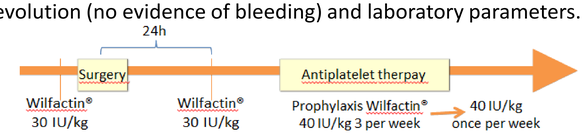
MATERIALS AND METHODS

Case No 1

- 52 years old woman, with vWD type II
- Bleeding score > 15 (History of Epistaxis, menorrhagia, postpartum bleeding, GI intestinal bleeding, gingivorrhagia)
- The patient had an acute coronary event, SCA (documented instable angina, coronary disease of two vessels coronary: right and descendent)
- Cardiac catheterization (coronary angiography) and placement of 2 bare-metal stents was required
- A dual antiplatelet therapy (clopidogrel/aspirin) was prescribed
- She had persistent angina symptoms despite the antianginal and antithrombotic management
- Because of angina symptoms, the patient underwent four cardiac catheterizations (coronary angiography)
- There was a third stent placement. During this surgery, a chronic dual antiplatelet therapy was settled

PROTOCOL OF MANAGEMENT

- Coronary Angioplasty (# 5) - VWF concentrate almost devoid of F VIII (Wilfactin®)
- Doses: 30 IU/kg before the procedure and 24 hours after the procedure.
- Prophylactic Treatment while receiving dual antiplatelet therapy (aspirin/Clopidrogel)
- At home: 40 IU/kg 3 times per week. Initially during the first six months, then frequency was decreased according to clinical evolution (no evidence of bleeding) and laboratory parameters.
- Currently, the dose is 40 IU/kg once per week (30 months of prophylaxis until now)



Case No 2

- 65-years-old type II VWD woman
- Patient with a DVT-PE, due to spinal surgery
- The patient received a perioperative prophylactic treatment with a dual FVIII-VWF concentrate during this procedure (before her admission in our institution)
- After her admission in our institution and confirmation DVT-PE diagnosis, an anticoagulant therapy with LMWH (Enoxaparine 1 mg x kg every 12 hours) for at least 6 months, was prescribed

PROTOCOL OF MANAGEMENT

- Therapeutic Concentrate: VWF concentrate almost devoid of FVIII (Wilfactin ®- LFB Biomedicaments)
- Prophylactic treatment: 30 IU/kg, 2 times per week for six months while receiving anticoagulant therapy with Enoxaparine 1mg/kg every 12 hours.

RESULTS

Case No 1	Basal	After VWF (almost devoid of FVIII) infusion
FVIII:C	64%	114%
VWF:Ag	49%	122%
VWF:RCo	26%	77%

Both patients received VWF concentrate almost devoid of FVIII with antithrombotic therapy to minimize bleeding risks
VWF treatment was monitored through levels of FVIII, VWF:Ag, VWF:Rco. Factor Levels were within therapeutic ranges.

Case No 2	Basal	After VWF (almost devoid of FVIII) infusion
FVIII:C	60%	107%
VWF:Ag	55%	155%
VWF:RCo	29%	90%

- Concomitant therapy with VWF concentrate almost devoid of FVIII and antithrombotic drugs were safe in both patients.
- No associated thrombotic events were observed, no evidence of major or clinically significant bleeding in any patient.

CONCLUSIONS

The antithrombotic therapy management is a big challenge in patients with blood dyscrasias.
The prophylactic use of Wilfactin®, was safe and any bleeding complications appeared in these patients. Also, using VWF concentrate almost devoid of Factor VIII means less thrombotic risk and an easier management due to lower FVIII quantities.
The different VWF concentrates (dual concentrates) can contain variable amounts of FVIII. Then, high levels of F VIII could have an increased risk of stent thrombosis in case No 1 or a new VTE in case No 2. Finally, the use of a prophylactic protocol with Wilfactin® in our patients, has been proven to be safe. No thrombotic events or supraphysiological levels of factor VIII were observed with this management.

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