The international prospective Glanzmann Thrombasthenia Registry: treatment modalities and outcomes in non-surgical bleeding episodes in Glanzmann thrombasthenia patients

Supplementary material

Supplementary Table 1. Glanzmann Thrombasthenia Registry: sponsor-defined definitions used in the GTR and post hoc definitions of bleeding severity.

Glanzmann thrombasthenia (GT) patients	Males and females, any age, with a lifelong bleeding tendency and a prolonged bleeding time or a prolonged PFA closure time; impaired or absent platelet aggregation (e.g. ADP, epinephrine, collagen, arachidonic acid, thrombin [but normal ristocetin]); normal platelet counts and platelet morphology. Optional diagnostic criteria: impaired clot retraction, quantitative/qualitative evaluation of GPIIb/IIIa receptors (flow cytometry); identification of gene defects
Re-bleeding	A bleeding starting ≥6 h and <48 h after the initial bleeding stopped
New bleeding episode	Bleeding after an effective outcome of the initial prophylactic treatment, occurring ≤7 days after the last hemostatic treatment
Refractoriness to platelets (past or present)	Persistent bleeding despite adequate amount of platelet infusions; or re-bleeding within 24 h despite adequate amount of platelet infusions
Effectiveness evaluations	Effective: Bleeding stopped and hemostasis achieved for ≥6 h Partially effective: Bleeding decreased substantially but continued Ineffective: Bleeding unchanged or worsened following treatment
Bleeding severity*	
Severe	Intracranial and/or resulting from severe trauma and/or symptomatic bleeding in a critical area or compressing a vital organ or leading to blood transfusion (need for the transfusion of ≥2 U of packed red cells)
Moderate	Bleeds that require a systematic hemostatic treatment other than antifibrinolytic drugs, but did not meet the criteria for the definition of severe bleeds

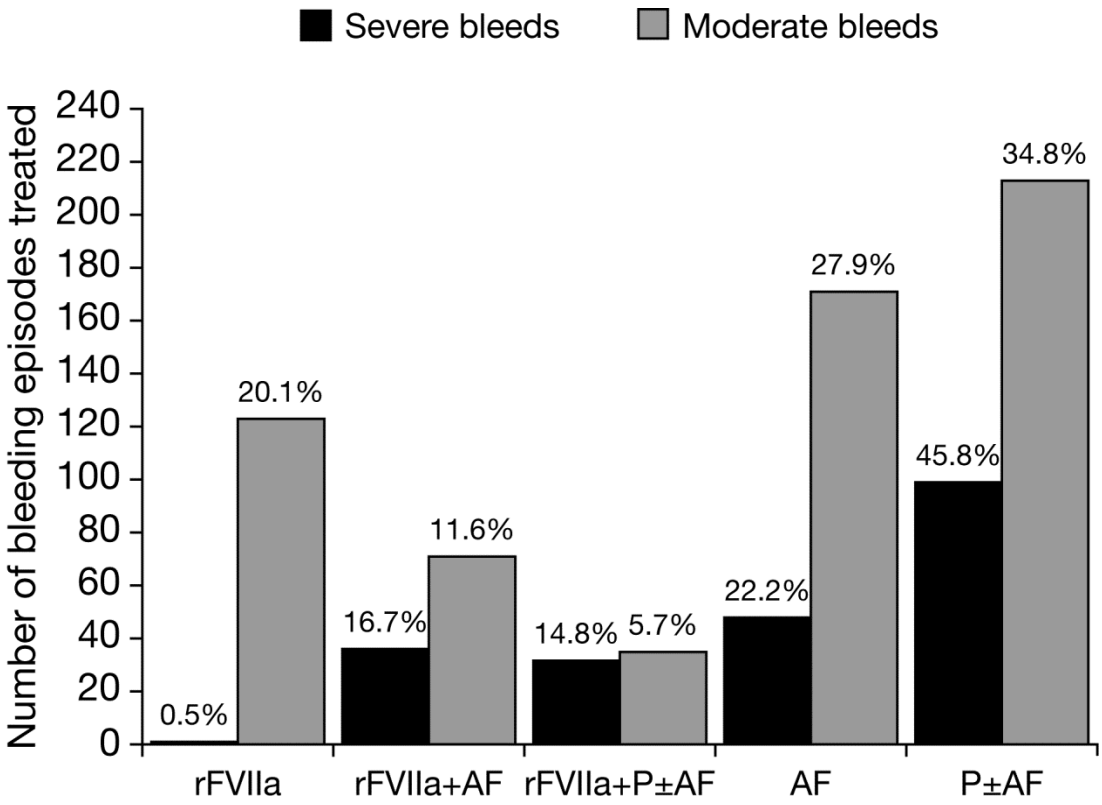
*These post hoc definitions of "severe and moderate bleeds" (employed in response to requests from the EMA) are similar to the definitions of "major and minor bleeds" published in April 2005 by the Subcommittee on Control of Anticoagulation of the Scientific and Standardization Committee of the International Society on Thrombosis and Haemostasis.[1]

ADP, adenosine diphosphate; PFA, platelet function assay.

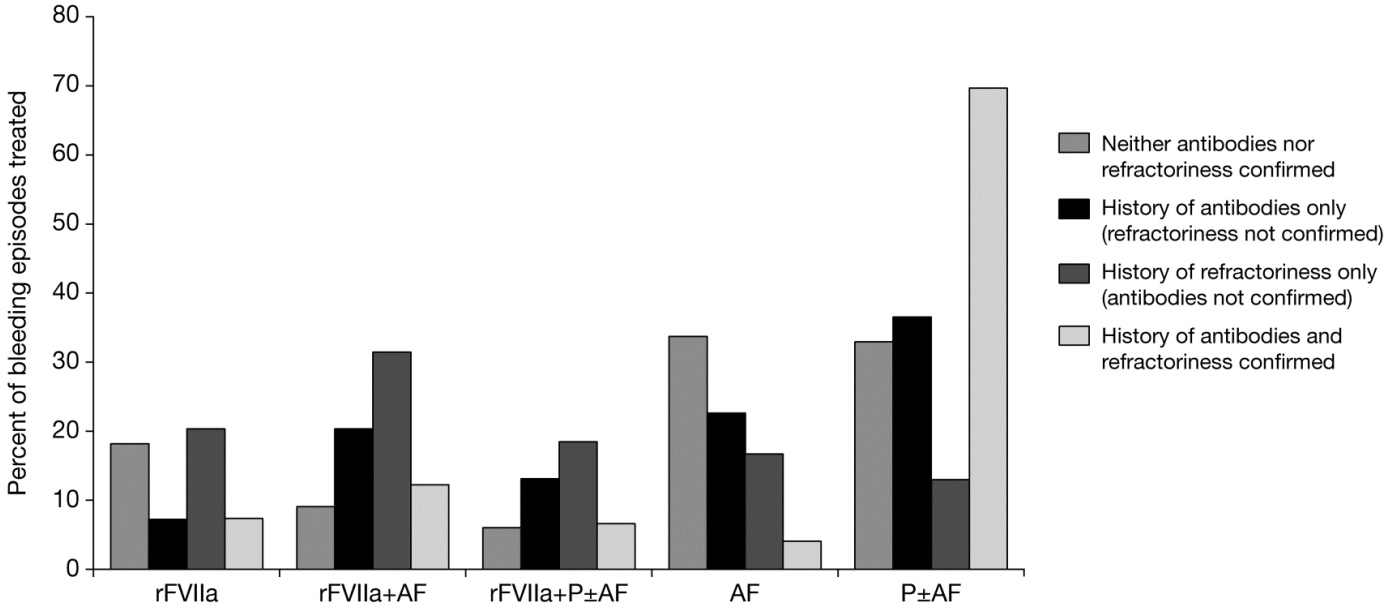
Supplementary Table 2. Glanzmann Thrombasthenia Registry: Non-surgical bleeding episodes stratified according to post hoc severity categorization.

	Moderate bleeding (n=613)	Severe bleeding (n=216)
Epistaxis	257 (41.9%)	83 (38.4%)
Menorrhagia	63 (10.3%)	27 (12.5%)
Oral	53 (8.6%)	13 (6.0%)
Easy bruising	172 (28.1%)	55 (25.5%)
Gum bleed	174 (28.4%)	67 (31.0%)
Subcutaneous hematoma	90 (14.7%)	13 (6.0%)
Muscle hematoma	20 (3.3%)	0 (0%)
Hematuria	8 (1.3%)	4 (1.9%)
Central nervous system	0 (0%)	2 (0.9%)
Hemarthrosis	18 (2.9%)	0 (0%)
Gastrointestinal	17 (2.8%)	41 (19.0%)
Hemorrhoidal	7 (1.1%)	7 (3.2%)
Hemoperitoneal	1 (0.2%)	1 (0.5%)
Other	60 (9.8%)	15 (6.9%)
Unknown	6 (1.0%)	3 (1.4%)

Supplementary Figure 1. Treatment modalities in GTR stratified according to the severity of bleeding episode. The values provided above the bars represent the percentages of severe or moderate bleeds treated by each treatment. AF: antifibrinolytics; P: platelets; rFVIIa: recombinant factor VIIa.



Supplementary Figure 2. Treatments utilized in GTR stratified according to a history of antibodies/refractoriness. AF: antifibrinolytics; P: platelets; rFVIIa: recombinant factor VIIa.



Supplementary References

1. Schulman S, Kearon C. Definition of major bleeding in clinical investigations of antihemostatic medicinal products in non-surgical patients. J Thromb Haemost. 2005;3(4):692-4.