

REAL-LIFE MANAGEMENT OF DIGESTIVE ENDOSCOPIES IN PATIENTS WITH VON WILLEBRAND DISEASE: IS THERE A BLEEDING RISK FOR PATIENTS WITH VON WILLEBRAND DISEASE?

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INTRODUCTION

Gastrointestinal (GI) bleedings are well-recognized complications of von Willebrand disease (VWD), requiring many endoscopic procedures. The objective of this report is to describe our real-life experience of digestive endoscopies' management in patients with VWD and identify a potential post-examination hemorrhagic risk.

METHOD

A retrospective, non-interventional, multicenter study was carried out over 48 months, from the BERHLINGO database, in 5 hemophilia centers in Western France. An exploratory analysis of the cohort was performed to pick out the patients with GI hospitalizations. On this basis, the in-stays that benefited from endoscopic procedures, the type of patients concerned (types and subtypes of VWD...), the treatments used and the occurrence of hemorrhagic events at the end of the in-stays were identified.

RESULTS

The analysis phase is currently going on and data presented here are for the coordinating center cohort only.

Total cohort:
481 patients
(100%)

Hospitalizations:
N=207 patients (43%)
↔ 439 in-stays (100%)

GI hospitalizations:
50 patients (10%) ↔
93 in-stays (21%)

**Endoscopies
(Cf TABLES 1 & 2):**
39 patients (8%) ↔ 56
in-stays (13%)

During these 56 hospitalizations, **91 endoscopic medical procedures** were performed (colonoscopies +/- esophagogastroduodenoscopies (EGD) +/- capsule cameras...). Six patients (n = 7 in-stays) were admitted via the emergency department or the intensive care units; then, active hemorrhages were detected during 4 in-stays via endoscopic procedures. **DDAVP (desmopressin) was administered in 23.2% of cases (n = 13 in-stays)**, mainly for types 1 and 2M VWD. The mean DDAVP dosage was 0.26 µg/kg/injection even if biopsies were taken (Cf table 3). **Von Willebrand Factor (VWF) was administered in 62.5% of cases (n = 35 in-stays)**, essentially for type 2M (34.3%) and type 3 (28.6%) VWD (Cf tables 4, 5 & 6). Without biopsies (n = 20 in-stays), the mean VWF dosage was 38.5 IU/kg/ED (exposure day) during 2.35 ED whereas it was 37.9 IU/kg/ED during 5.00 ED in case of biopsies (n = 15 in-stays) (Cf table 7). Concomitantly, all patient were prescribed per os tranexamic acid. **None of the patients had any post-endoscopic bleeding events or was neither readmitted within 15 days of the endoscopies.**

CONCLUSIONS

No increased hemorrhagic risk and no cases of readmission at day 15 were identified in patients who underwent endoscopic procedures in this study, including in the case where resection techniques were used. The implementation of registries with real-life clinical data can assess clinical practices and allows to verify the safety of these procedures.

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TABLE 1	Simple endoscopies	Biopsies / Mucosectomies / Argon plasma / Surgical clips	TOTAL IN-STAYS
Types of endoscopies			
Colonoscopies	10 (17.9%)	8 (14.3%)	18 (32.2%)
EGD	11 (19.6%)	7 (12.5%)	18 (32.1%)
Colonoscopies+EGD	10 (17.9%)	10 (17.8%)	20 (35.7%)
TOTAL	31 (55.4%)	25 (44.6%)	56 (100.0%)

TABLE 2	Patients n (%)	In-stays n (%)	Simple endoscopies	Biopsies / Mucosectomies / Argon plasma / Surgical clips
VWD types in-stays				
Type unclassified	1 (2.6%)	1 (1.8%)	1 (1.8%)	0 (0.0%)
Type 1	5 (12.8%)	5 (8.9%)	2 (3.6%)	3 (5.4%)
Type 2A	5 (12.8%)	5 (8.9%)	2 (3.6%)	3 (5.4%)
Type 2B	5 (12.8%)	11 (19.6%)	8 (14.3%)	3 (5.4%)
Type 2M	12 (30.8%)	15 (26.8%)	9 (16.1%)	6 (10.7%)
Type 2N	3 (7.7%)	3 (5.4%)	2 (3.6%)	1 (1.8%)
Type 2 unclassified	2 (5.1%)	3 (5.4%)	0 (0.0%)	3 (5.4%)
Type 3	5 (15.4%)	13 (23.2%)	7 (12.5%)	6 (10.7%)
TOTAL	39 (100.0%)	56 (100.0%)	31 (55.4%)	25 (44.6%)

TABLE 3	Simple endoscopies (n=5)	Biopsies / Mucosectomies / Argon plasma / Surgical clips (n=8)	TOTAL (n=13 in-stays)
Mean DDAVP dosage µg/kg/inj +/- sd			
Colonoscopies (n=6)	0,26 +/- 0,03	0,24 +/- 0,05	0,25 +/- 0,04
EGD (n=2)	0,26	0,29	0,28 +/- 0,02
Colonoscopies+EGD (n=5)	0,26 +/- 0,02	0,27	0,27 +/- 0,02
TOTAL (n=13)	0,26 +/- 0,03	0,26 +/- 0,03	0,26 +/- 0,03

TABLE 4	Patients: n (%)	Basal VWF Activity (IU.L ⁻¹)	Basal FVIII:C (IU.L ⁻¹)
VWD patients: basal levels (mean +/-sd, [Min; Max])			
Type 1	1 (4.8%)	14.0 [14.0; 14.0]	41.0 [41.0; 41.0]
Type 2A	1 (4.8%)	24.0 [24.0; 24.0]	50.0 [50.0; 50.0]
Type 2B	3 (14.3%)	23.0 +/- 13.7 [11.0; 38.0]	52.3 +/- 24.4 [34.0; 80.0]
Type 2M	10 (47.6%)	12.7 +/- 7.1 [4.0; 28.0]	43.5 +/- 21.7 [17.0; 98.0]
Type 3 without inhibitor	5 (23.8%)	<1.7 +/- 1.1 [<1.0; <3.0]	1.4 +/- 0.5 [1.0; 2.0]
Type 3 with inhibitor	1 (4.8%)	<3.0 [<3.0; <3.0]	1.0 [1.0; 1.0]
TOTAL	21 (100.0%)	11.7 +/- 9.9 [<1.0; 38.0]	32.9 +/- 26.5 [1.0; 98.0]

TABLE 6	Simple endoscopies (n=20)	Biopsies / Mucosectomies / Argon plasma / Surgical clips (n=15)	TOTAL (n=35 in-stays)
Mean VWF Quantity IU/in-stay +/- sd			
Colonoscopies (n=7)	2,800 +/- 693	9,375 +/- 5,341	6,557 +/- 5,174
EGD (n=15)	4,533 +/- 3,688	11,800 +/- 10,466	7,440 +/- 7,776
Colonoscopies+EGD (n=13)	4,875 +/- 3,340	9,560 +/- 6,877	6,677 +/- 5,282
TOTAL (n=35)	4,410 +/- 3,224	10,407 +/- 7,755	6,980 +/- 6,296

TABLE 5	In-stays: n (%)	VWF dosage of pre-operative injection (IU/kg/inj) (n, in-stays)*	FVIII dosage of pre-operative injection (IU/kg/inj) (n, in-stays)*	VWF dosage/ED (IU/kg/ED)	FVIII dosage/ED (IU/kg/ED)
Treatments with VWF / FVIII: mean dosage +/- sd [Min; Max])					
Type 1	1 (2.9%)	47.4 [47.4; 47.4] (1)*	19.7 [19.7; 19.7] (1)*	36.8 [36.8; 36.8]	15.3 [15.3; 15.3]
Type 2A	1 (2.9%)	/	/	37.9 [37.9; 37.9]	15.8 [15.8; 15.8]
Type 2B	8 (22.9%)	41.4 +/- 4.5 [33.3; 44.1] (5)*	16.9 +/- 2.0 [13.9; 18.2] (4)*	41.9 +/- 9.8 [23.5; 54.5]	13.9 +/- 9.0 [0.0; 22.7]
Type 2M	12 (34.3%)	37.2 +/- 11.1 [21.2; 62.1] (10)*	15.5 +/- 4.6 [8.8; 25.9] (10)*	34.8 +/- 12.1 [16.0; 62.1]	14.5 +/- 5.0 [6.6; 25.9]
Type 3 without inhibitor	10 (28.6%)	48.5 +/- 11.5 [33.3; 60.0] (8)*	19.5 +/- 5.5 [13.9; 30.0] (7)*	51.1 +/- 16.3 [33.3; 84.0]	23.5 +/- 20.7 [5.0; 80.0]
Type 3 with inhibitor	3 (8.6%)	/	50.0 +/- 46.7 [17.0; 83.0] (2)*	/	419.5 +/- 32.4 [392.9; 455.6]
TOTAL	35 (100.0%)	42.2 +/- 11.1 [21.2; 62.1] (24)*	20.0 +/- 14.5 [8.8; 83.0] (24)*	41.8 +/- 14.1 [16.0; 84.0]	51.7 +/- 115.2 [0.0, 455.5]

TABLE 7	Simple endoscopies (n=25)	Biopsies / Mucosectomies / Argon plasma / Surgical clips (n=23)	TOTAL (n=48 in-stays)
Mean treatment duration (d) +/- sd [Min; Max]			
VWF / FVIII (n=35)	2.35 +/- 2.98 [1.00; 14.00]	5.00 +/- 4.38 [1.00; 18.00]	3.49 +/- 3.82 [1.00; 18.00]
dDAVp (n=13)	1.00 +/- 0.00 [1.00; 1.00]	2.50 +/- 0.93 [1.00; 4.00]	1.92 +/- 1.04 [1.00; 4.00]