Periprocedural anticoagulation management in edxoaban patients undergoing catheter-based cardiovascular procedures: analyses of the noninterventional global EMIT study

Vanassche T.[1]; Colonna P.[2]; Santamaria A.[3]; Chen C.[4]; Von Heymann C.[5]; Jin J.[4]; Saxena M.[6]; Jiang W.[4]; Unverdorben M.[4]

[1]University Hospitals (UZ) Leuven, Leuven, Belgium
[2]Polyclinic Hospital of Bari, Bari, Italy
[3]University Hospital Vilaopo y Torrevieja, Alicante, Spain
[4]Daiichi Sankyo, Inc., Basking Ridge, United States of America
[5]Vivantes Klinikum im Friedrichshain, Berlin, Germany
[6]William Harvey Research Institute, London, United Kingdom of Great Britain & Northern Ireland

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Background: The optimal periprocedural management of direct oral anticoagulants (DOAC), including edoxaban, in patients undergoing catheter-based cardiovascular procedures is unknown, and mainly based on physician opinion and experience.

Purpose: To assess real-world management of edoxaban in patients undergoing cardiovascular procedures, and to report their clinical events.

Methods: Global EMIT-AF/VTE is a prospective study of periprocedural management in edoxaban-treated patients undergoing diagnostic and therapeutic procedures. We report the data from patients undergoing cardiovascular procedures. Timing and duration of edoxaban interruption were at the treating physician's discretion. Outcomes were collected from 5 days before until 30 days post procedure. Primary outcome was the incidence of major bleeding (MB); secondary outcomes included incidence of clinically relevant non-major bleeding (CRNMB) and acute thromboembolic events (ATE).

Results: Data was collected from 301 and 311 procedures with arterial or venous access, respectively. Baseline characteristics are shown in Table 1. Edoxaban was not interrupted in 36.9% of arterial and 52.7% of venous procedures. Edoxaban was interrupted pre-procedure in 41% of arterial and 32.8% of venous procedures. The median periprocedural interruption was 2 days. The overall incidence of bleeding was very low. Any bleeding was reported in 8 patients undergoing arterial and 10 patients undergoing venous procedures (2.7% and 3.2%). MB or CRNMB occurred in 2 arterial and 3 venous procedures (0.7% and 1.0%) and ATE occurred in 5 arterial and 1 venous procedure (1.7% and 0.3%, Table 1).

Conclusions: In this study, the periprocedural risks of bleeding and thrombotic events were low. About a third of arterial access procedures and half of venous access procedures were performed without edoxaban interruption.

	Arterial (n = 301)	Venous (n = 311)
Baseline characteristics		
Age, year, mean (SD)	71.9 (8.5)	64.6 (11.1)
Male, n (%)	211 (70.1%)	215 (69.1%)
Weight (kg), mean (SD)	80.8 (16.7)	84.1 (17.4)
CrCL (mL/min), mean (SD)	73.5 (29.8)	88.9 (35.5)
CHA_2DS_2-VASc score, mean (SD)	3.3 (1.5)	2.2 (1.5)
HAS-BLED score, mean (SD)	2.0 (1.0)	1.3 (1.0)
Edoxaban 60 mg / 30 mg, %	73% / 26%	88% / 26%
Coronary heart disease, n (%)	101 (33.6%)	51 (16.4%)
Congestive heart failure, n (%)	58 (19.3%)	33 (10.6%)
Interruption of edoxaban, n (%)		
No interruption	111 (36.9%)	164 (52.7%)
Pre-procedure only	125 (41.5%)	102 (32.8%)
Post-procedure only	12 (4.0%)	8 (2.6%)
Pre- and post-procedure	53 (17.6%)	37 (11.9%)
Clinical events, n (%)		

	Arterial (n = 301)	Venous (n = 311)
MB or CRNMB	2 (0.7%)	3 (1.0%)
ACS	2 (0.7%)	0
Stroke/Transient ischemic attack	3 (1.0%)	1 (0.3%)
CV mortality	1 (0.3%)	0
All-cause mortality	2 (0.7%)	0