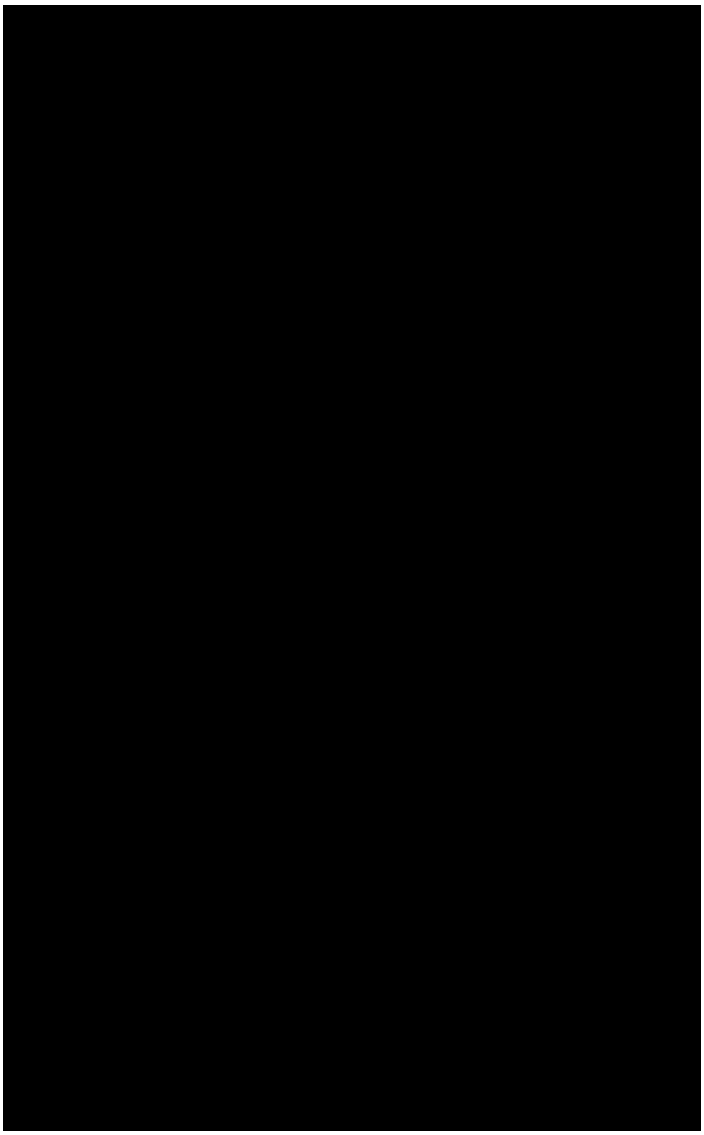

TCT-176

Access and non-Access Site Bleeding in Acute Coronary Syndrome Patients Treated with a Novel Actively Reversible Factor IXa Inhibitor. Results from the RADAR Trial

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Background: Bleeding complicating acute coronary syndrome (ACS) invasive care is associated with increased ischemic events and mortality. Current anticoagulants are limited by unpredictable pharmacodynamics and lack of specific reversibility. We evaluated the effects of the REG1 System, an RNA aptamer, direct factor IXa inhibitor, pegnivacogin, and its active control agent, animaversen, on access and non-access site bleeding.

Methods: RADAR was a phase 2 trial evaluating the safety and efficacy of anticoagulation with REG1 in non-ST-elevation ACS and planned early catheterization via femoral access. A total of 640 patients were randomized 2:1:1:2:2 to pegnivacogin with 25%, 50%, 75%, or 100% reversal with anivamersen with sheath removal at 10 minutes, or to heparin with sheath removal per standard care. Access and non-access site bleeding at 30 days was assessed (ACUITY scale).

Results: Overall bleeding rates were similar across groups, with a trend toward less major bleeding with more complete pegnivacogin reversal. Bleeding severity and locations are shown (Table). The 25% reversal arm was terminated early due to excess bleeding. One patient in the heparin arm had an intracranial bleed. Most bleeding occurred ≤48 hours of randomization (81.1% with REG1 vs. 80% with heparin).

	REG1 100% Reversal (n=198)	REG1 75% Reversal (n=119)	REG1 50% Reversal (n=116)	REG1 25% Reversal (n=40)	Heparin (n=161)
Major or Minor Bleeding [N (%)]	59 (30)	41 (34)	38 (33)	26 (65)	50 (31)
Major Bleeding [N (%)]	14 (7)	10 (8)	12 (10)	8 (20)	16 (10)
Transfusion [N (%)]	4 (2)	2 (2)	1 (1)	1 (3)	4 (2)
Access Site Bleeding [N (%)]	47 (24)	38 (32)	34 (29)	26 (65)	45 (28)
Hematoma ≥ 5cm [N (%)]	8 (4)	8 (7)	8 (7)	6 (15)	11 (7)
Retroperitoneal Bleeding [N (%)]	0	2 (2)	1 (1)	0	6 (4)
Hemoglobin Drop > 4 g/dL [N (%)]	5 (3)	2 (2)	4 (3)	4 (10)	6 (4)
Gastrointestinal Bleeding [N (%)]	2 (1)	0	1 (1)	1 (3)	1 (1)

Conclusion: In non-ST ACS patients undergoing early invasive management, major bleeding occurs in 10% of cases and is most often related to the vascular access site. The REG1 System, with ≥ 50% reversal and early sheath removal resulted in similar rates and severity of bleeding compared with heparin and standard sheath removal.