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Titel des Beitrags: Collagen plug vascular closure devices and reduced risk of bleeding with bivalirudin versus heparin plus abciximab in patients undergoing percutaneous coronary intervention for non st-segment elevation myocardial infarction.

Abstract: In ISAR-REACT-4 (abciximab and heparin vs. bivalirudin for non-ST-elevation myocardial infarction [NSTEMI]), bivalirudin reduced the risk of bleeding after percutaneous coronary intervention (PCI) compared with unfractionated heparin plus abciximab (UFH + abciximab). Vascular closure devices (VCDs) may also prevent bleeding complications, and thus attenuate the benefit of bivalirudin. This analysis examined whether there exists an interaction on bleeding between VCDs and bivalirudin versus UFH + abciximab after PCI. Patients with NSTEMI were randomly assigned to either receive UFH + abciximab or bivalirudin for PCI. The use of a VCD after femoral access was left to the operator's discretion. The effect of randomized treatment in patients who received a VCD was compared to that in patients with manual compression of the femoral access site. The primary end-point of this analysis was the 30-day incidence of ISAR-REACT-4 major bleeding. A total of 1,711 patients were enrolled in this analysis. Among the 365 (21.3%) patients receiving a VCD, 188 (51.5%) were treated with UFH + abciximab and 177 (48.5%) with bivalirudin. ISAR-REACT-4 major bleeding was higher
with UFH + abciximab than with bivalirudin, independent of whether a VCD was used (4.8% vs. 2.3% with VCD and 4.6% vs. 2.7% without VCD, Pint = 0.76). There were also no interactions between randomized treatment and VCDs with respect to any of the ischemic end-points or net clinical outcome (Pint > 0.56). In patients undergoing PCI for NSTEMI, the reduction of major bleeding by bivalirudin compared with UFH + abciximab was not affected whether a VCD was used.