



## IMPACT OF BIVALIRUDIN ON ACCESS AND NON-ACCESS RELATED BLEEDING IN PATIENTS UNDERGOING BALLOON AORTIC VALVULOPLASTY: RESULTS FROM A 2-CENTER REGISTRY

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**Background:** Bivalirudin is associated with a significant reduction in both access and non-access site bleeding in PCI patients. Whether this benefit extends to patients undergoing balloon aortic valvuloplasty (BAV) is unknown.

**Methods:** We conducted an independent retrospective review of 428 consecutive patients who underwent retrograde BAV (from 2005 to 2010) at two high-volume centers using either bivalirudin (n=223) or unfractionated heparin (UFH) (n=205) as anticoagulant. Major bleeding was defined as Bleeding Academic Research Consortium (BARC) type bleeding ≥ 3. All events were adjudicated by a CEC blinded to antithrombin use.

**Results:** Baseline features were well-balanced between groups. Pts receiving UFH were more likely to have 2 arterial access sites (12.6% v. 53.7%, p<0.001) and less likely to undergo successful preclosure (69.1% v. 41.7%, p<0.001). Major bleeding occurred in 38 (8.9%) patients, which included bleeding at the access site (n=24), and non-access site (n=14). Compared to UFH, bivalirudin reduced the overall bleeding rate (4.9% v. 13.2%, OR 0.34, 95% Cl: 0.15 - 0.74, p = 0.003); concordant reductions were evident in both access (3.9% vs. 7.2%, OR 0.52, 95% Cl: 0.19 - 1.34, p = 0.14) and non-access site bleeding (1.5% vs. 4.9%, OR 0.29, 95% Cl: 0.05 - 1.11, p=0.06).

**Conclusion:** In this two-center registry of high risk patients undergoing BAV, bivalirudin significantly reduced bleeding and this was attributable to both access and non-access sites.

