



## Valvular Heart Disease

### IMPACT OF ACUTE KIDNEY INJURY ON OUTCOMES IN PATIENTS UNDERGOING BALLOON AORTIC VALVULOPLASTY

Poster Contributions

Poster Sessions, Expo North

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**Background:** Acute kidney injury (AKI) is frequently seen in elderly patients with aortic stenosis undergoing BAV, however its impact on in-hospital outcomes has not been characterized.

**Methods:** We conducted a retrospective review of 428 consecutive patients who underwent non-emergent, retrograde BAV from January 2005 to July 2011 at two high-volume US centers that used heparin (UFH) or Bivalirudin anticoagulation. We analyzed baseline and procedural characteristics as well as in-hospital outcomes according to the presence or absence of AKI. All adverse events were adjudicated by a blinded, independent clinical events committee.

**Results:** Among the 428 patients who underwent BAV, the average age was 83±9, and 41 (9.6%) had AKI. Those patients were more often female, with a higher prevalence of diabetes, and were more likely to receive higher volume of contrast media (78.4 mL±90.73 vs 62.4 mL±51.16; P is NS). AKI patients experienced significantly higher rates of in-hospital mortality, MACE, NACE and major bleeding compared to patients without AKI (Table 1). After adjusting for confounders, AKI was associated with in-hospital NACE (OR: 8.51 95% CI: 3.90-18.56; P<0.001).

**Conclusion:** In this large BAV registry, AKI was associated with an increased risk of in-hospital adverse outcomes. Further investigation into the prevention of AKI in these high-risk patients is warranted.

	AKI (n= 41)	No AKI (n=387)	P value
MACE	15 (36.6)	23 (5.9)	<0.001
NACE	21 (51.2)	45 (11.6)	<0.001
All-cause mortality	11 (26.8)	13 (3.4)	<0.001
Myocardial infarction	5 (12.2)	9 (2.3)	0.007
Major stroke	0 (0.0)	3 (0.8)	0.57
Major bleeding	11 (26.8)	27 (7.0)	<0.001
Acute vascular injury	15 (36.6)	23 (5.9)	0.04

**In-Hospital Outcomes.** Values are n (%). Abbreviations: BARC - Bleeding Academic Research Consortium; MACE - major adverse cardiovascular events; NACE - net adverse clinical events includes any major bleeding or MACE.