

### **P9. Does Aortic Valve Replacement Mitigate The Mortality Risk Of Preoperative Heart Failure?**

Dumbor L. Ngaage; Levent Guvendik

*Castle Hill Hospital, Kingston-Upon-Hull, East Yorkshire, United Kingdom*

**OBJECTIVES:** Improvement in medical management of aortic valve disease can complicate the timing of surgery. When heart failure (HF) develops, aortic valve replacement (AVR) becomes high risk. It is uncertain if in the long term, the adverse prognostic effect of HF is mitigated by AVR.

**METHODS:** Review of prospectively collected data and interrogation of the national death registry for all patients who underwent aortic valve replacement between January 1999 and June 2008. Logistic regression, Cox proportional hazard and Kaplan Meir methods were used to determine the impact of preoperative heart failure early and late survival after AVR.

**RESULTS:** Results: Of 849 patients, 243 had HF (current n=138, remote n=105) and 606 did not. Operative risk was greater for HF group (EuroScore) and correspondingly, mortality was higher for HF patients (5.8% current, 2.9% remote) compared to 'no' HF group (1.2%, p=.002). After a median follow-up of 4 (maximum 10) years, HF patients experienced more late deaths (32.3% current, 28.4% remote) than no HF group (13.2%, p<.0001). Preoperative heart failure profoundly increased early mortality (odds ratio 3.93, 95% confidence interval 1.24-12.50, p=.02 for current), and directly decreased long-term survival (hazard ratio 1.63, 95% confidence interval 1.09-2.42, p=.02 for current, HR 1.94, 95% CI 1.25-3.02, p=.003 for remote). The comparative 5-year survivals were 65.7%, 68.7%, and 87.4% for current, remote and no HF groups.

**CONCLUSIONS:** Conclusion: AVR should be considered early for patients with aortic valve disease. Once complicated by heart failure, the early and late survival benefit of surgery is compromised.