P66: REDUCTION IN AUGMENTATION PRESSURE IS ASSOCIATED WITH IMPROVEMENT OF EARLY VENTRICULAR EJECTION AFTER AORTIC VALVE REPLACEMENT

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P63
MODIFICATION OF SYMPATHETIC TONE BY RENAL ARTERY DENERVATION CAUSES EARLY, SIGNIFICANT AND SUSTAINED ARTERIAL DE-STIFFENING
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Objective: To examine whether Sympathetic Renal Denervation (RDN) might have an additive value for cardiovascular risk decline beyond lowering blood pressure.

Methods: 73 selected patients with resistant hypertension had RDN performed. Arterial stiffness was measured, using applanation tonometry, before the procedure, 24 to 48 hours following the procedure and subsequently 1, 3 and 6 months after the RDN.

Results: Within 48 hours RDN significantly reduced carotid-femoral aortic pulse wave velocity (AoPWV) from 11.3 ± 2.7 to 10.3 ± 2.6 m/s (p = 0.001), the reduction was sustained at months 1, 3, and 6. Early changes of AoPWV value did not correlate with office systolic or diastolic pressure.

Conclusion: A sustainable effect on AoPWV, observed in our study as early as within 24-48 hours following the procedure and up to 6 months, suggests an additional RDN effect on reducing arterial stiffness and cardiovascular risk. The de-stiffening effect was greater in patients with high initial AoPWV.

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REMOTE ISCHAEMIC PRECONDITIONING REDUCES KIDNEY INJURY IN VASCULAR SURGERY
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Background: Perioperative acute kidney injury has been found to occur in 12% of patients undergoing lower limb revascularisation (Arora et al., 2013). The aim of the current double-blind, randomised and sham-controlled pilot study was to determine the effect of remote ischaemic pre-conditioning (RIPC) in perioperative renal damage in vascular surgery.

Methods: Patients undergoing elective lower limb revascularisation surgery between January 2016 and February 2018, who gave full informed consent, were recruited. Four episodes of 5 minutes of upper limb ischaemia were performed preoperatively. In the sham group, pressure equal to venous pressure was maintained for the time of the first systolic peak (T1) on the carotid pressure waveform.

Results: 10 patients with severe AS (aged 75.8 ± 7.8 years) and preserved EF (62.2 ± 7.1%) were studied before and 48–72 hours after AVR. There was a significant reduction in mean arterial pressure (MAP) (pre:18.7 ± 11.2 mmHg vs post:12.3 ± 11.4 mmHg, p = 0.012) and AP (pre:20.8 ± 11.4 mmHg vs post:11.0 ± 5.8 mmHg, p = 0.017). EF1 improved significantly (pre:18.7 ± 6.8% vs post:28.9 ± 12.4%, p = 0.043), whilst EF did not change.

Conclusion: In patients with AS and preserved EF, an improvement of early ejection is associated with reduction in augmentation pressure after AVR.