according to usual clinical indications, predominantly exhaustion.

Results: Exercise duration was associated with aortic strain ($P < 0.001$, $r^2 = 0.25$), age ($P < 0.001$, $r^2 = 0.25$) and gender ($P < 0.01$) (lower in females). Strain and gender, but not age, were independently associated with exercise duration, with strain entering the model first ($P < 0.001$, $r^2 = 0.32$). Neither strain nor exercise duration was associated with rest or peak blood pressure, or rate pressure product. Aortic strain was not associated with the presence or severity of coronary artery disease in this moderate to high risk cohort. The relationship between aortic strain and exercise duration was similar in those with and without evidence of exercise induced myocardial ischaemia (ST depression $\geq$1 mm).

Conclusion: Aortic strain is associated with exercise duration in patients with and without myocardial ischaemia. Further research is merited to assess its potential to improve risk stratification or as a therapeutic target.

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44

Renal Denervation for Refractory Hypertension

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Background: Sympathetic activation is a cardinal feature of chronic renal failure (CRF) and contributes to poor cardiovascular outcomes. Both efferent and afferent renal nerves play a crucial role in blood pressure regulation and hypertension commonly associated with CRF. Renal nerve ablation has been shown to be safe and effective in patients with resistant hypertension with normal renal function. Whether this approach is safe and effective in hypertensive patients with an eGFR below 45 ml/min has not yet been explored.

Methods: In this pilot study, percutaneous endovascular radiofrequency ablation was performed in three hypertensive patients (age 67 ± 1 years) with CRF stage 3–4 (mean baseline eGFR 29.7 ± 3.8 ml/min). To reduce contrast exposure CO_2-angiography was used to visualise the renal arteries and to position the ablation catheter. Standardised office blood pressure (BP) readings and serum biochemistry were obtained before and 1, 7, and 28 days after the procedure.

Results: Mean baseline BP was $192 \pm 29/91 \pm 18$ mm Hg despite an average of 5.3 antihypertensive drugs. Each patient underwent treatment of both renal arteries in one session with an average of 4.2 ± 0.8 ablation treatments per artery. Angiographic evaluation before and directly after the procedure did not reveal any compromise of the treated arteries. There were no intra- or periprocedural complications. At seven day and 28 day follow up estimated GFR was 27.7 ± 6.0 and 27.7 ± 5.5 ml/min, and average BP was $179 \pm 11/86 \pm 15$ and $163 \pm 38/82 \pm 25$ mm Hg, respectively.

Conclusions: Our preliminary findings are indicative of a favourable short term safety profile and a rapid blood pressure response to renal denervation in high risk patients with CRF.

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45

Retrospective Audit of Hypertension Management in a Chronic Disease Management Unit at a Major Tertiary Hospital in Australia

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Hypertension is a known cardiovascular risk factor and treatment has been shown to reduce cardiovascular morbidity and mortality. The objective of this study was to evaluate hypertensive management in an outpatient clinic according to current Heart Foundation of Australia guidelines. A retrospective audit of all patients' records from their appointment in the month of May 2010 was conducted. A database was made of patients' blood pressure and co-morbid diseases in a spreadsheet and whether their blood pressure medication had been changed. 137 patients were included. Fifty-nine patients had diabetes mellitus and 60 of the 127 patients had ischaemic heart disease as co-morbidities. On 32 occasions, patients with diabetes and/or ischaemic heart disease recorded a systolic blood pressure greater than 130 mm Hg or a diastolic greater than 80 mm Hg. Only one of these 32 patients had their blood pressure therapy adjusted by the addition of a new medication or an increased dose of a pre-existing tablet. Ten patients without diabetes or ischaemic heart disease recorded a blood pressure systolic greater than 140 mm Hg or diastolic greater than 90 mm Hg. An appropriate change according to guidelines occurred in five patients. Results indicate that blood pressure management is suboptimal. Reasons for under-treatment may include therapeutic inertia, lack of time, lack of knowledge and competing management priorities. Subsequent changes to the clinic electronic record now incorporate guidelines for management of diabetes, and IHD. Mandatory tick boxes form part of the electronic record indicating guideline adherence or reasons for non-adherence, allowing us to more readily track out performance.

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