

Renal Sympathetic Denervation for Resistant Hypertension. A Single Center Experience

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Introduction: Essential hypertension is the most prevalent disease in the western world. Wide and safe pharmacotherapies exist for the treatment of hypertension, however only 50% of patients achieve adequate blood pressure control, and many patients require multiple medications, often three or more, to adequately control their blood pressure. Catheter-based renal sympathetic denervation is emerging as a novel treatment for patients with resistant hypertension

Methods and results: Seven patients underwent the procedure between July and November 30 2011. Mean (\pm SD) office blood pressure was 188/80 \pm 25/13 mmHg and Mean ambulatory blood pressure was 149/75 \pm 12/5 mmHg. Number of antihypertensive medications was 4.1 \pm 1.6.

Creatinine level was 94 \pm 25 micromol/l. The procedure was performed via the femoral artery under mild sedation. Between five to seven (two minutes each) low power radiofrequency ablations were applied along the length of each renal artery using the symplicity catheter (Medtronic). Overall 16 arteries were treated. Patients were hospitalized at the day of the procedure and stayed overnight for observation. There were no complications during or after the procedure. Creatinine level was not significantly changed. The three and six months clinical outcome of this cohort will be presented in the upcoming Israeli Heart Society Meeting.

Conclusions: Renal denervation is a novel and promising procedure for the treatment of resistant hypertension. In our preliminary experience no complications were recorded.