**RENAL ARTERY DENERVATION IN KAZAKHSTAN: IMPACT OF ETHNICITY AND AGE**

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*Objective:* To explore the impact of age and ethnicity on blood pressure (BP) reduction after renal artery denervation.

*Background:* The prevalence of hypertension in Kazakhstan is up to 70% in adults aged 50-75 years and the majority of patients are not adequately controlled. Treatment with renal artery denervation could represent a useful therapeutic option for this subset of patients and has not been previously studied in Kazakh patients.

*Methods and Results:* We performed renal artery denervation on 63 patients with resistant hypertension with Symplicity catheter (Medtronic, Inc.). Ambulatory and office blood pressure was measured at baseline and month 12 and post-hoc subgroup analyses were performed based on age and ethnicity. There was a decrease of 36±22 mmHg in systolic office BP and a decrease in 22±14 mmHg in diastolic office BP from baseline to 12 months in all patients (N=63, p<0.001). Similar reductions in BP were observed from baseline to 12months for every age group (<45 years, 45-59 years, 60+) and also for ethnic Kazakh and European subgroups (Table).

*Conclusions:* Our observations from this Kazakhstani cohort are consistent with other non-controlled studies and this treatment modality deserves further research.

Table. Office blood pressure changes after renal artery denervation impact of age and ethnicity

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Subgroup | Office systolic blood pressure  mean (SD) | | Office diastolic blood  Pressure mean (SD) | |
|  | Baseline | 12 months | Baseline | 12 months |
| Overall (n=63) | 186 (21) | 150 (13) | 111 (14) | 87 (8) |
|  |  |  |  |  |
| Age <45(n=11) | 185 (20) | 155 (14) | 111 (16) | 88 (7) |
| Age 45-59 (n=30) | 187 (23) | 151 (13) | 111 (14) | 89 (9) |
| Age 60+ (n=17) | 186 (18) | 146 (10) | 110 (13) | 88 (8) |
|  |  |  |  |  |
| European (n=19) | 184 (19) | 151 (10) | 108 (13) | 88 (8) |
| Kazakh (n=39) | 187 (21) | 150 (14) | 111 (14) | 89 (8) |