Refractory hypertension: definition, prevalence, and patient characteristics.

Among patients with resistant hypertension (RHTN), there are those whose blood pressure (BP) remains uncontrolled in spite of maximal medical therapy. This retrospective analysis aims to characterize these patients with refractory hypertension. Refractory hypertension was defined as BP that remained uncontrolled after ≥3 visits to a hypertension clinic within a minimum 6-month follow-up period. Of the 304 patients referred for RHTN, 29 (9.5%) remained refractory to treatment. Patients with refractory hypertension and those with controlled RHTN had similar aldosterone levels and plasma renin activity (PRA). Patients with refractory hypertension had higher baseline BP (175±23/97±15 mm Hg vs 158±25/89±15 mm Hg; P=.001/.005) and heart rate, and higher rates of prior stroke and congestive heart failure. During follow-up, the BP of patients with refractory hypertension remained uncontrolled (168.4±14.8/93.8±17.7 mm Hg) in spite of use of an average of 6 antihypertensive medications, while those of patients with controlled RHTN decreased to 129.3±11.2/77.6±10.8 mm Hg. Spironolactone reduced the BP by 12.9±17.8/6.6±13.7 mm Hg in patients with refractory hypertension and by 24.1±16.7/9.2±12.0 mm Hg in patients with controlled RHTN. In patients with RHTN, approximately 10% remain refractory to treatment. Similar aldosterone and PRA levels...
and a diminished response to spironolactone suggest that aldosterone excess does not explain the treatment failure.

DOI
10.1111/j.1751-7176.2011.00556.x

Alternate Journal
J Clin Hypertens (Greenwich)

PubMed ID
22235818

PubMed Central ID
PMC3400427

Grant List
5UL1 RR025777 / RR / NCRR NIH HHS / United States
P50 HL077100 / HL / NHLBI NIH HHS / United States
P50 HL077100 / HL / NHLBI NIH HHS / United States
R01 HL075614 / HL / NHLBI NIH HHS / United States
R01-HL79040 / HL / NHLBI NIH HHS / United States
T32 HL007457 / HL / NHLBI NIH HHS / United States
T32 HL007457 / HL / NHLBI NIH HHS / United States
UL1 RR025777 / RR / NCRR NIH HHS / United States