

## UNCONTROLLED HYPERTENSION IN A 33 YEAR OLD RUNNER

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**HISTORY:** A 33 year old Caucasian female recreational runner with a five year history of poorly controlled stage two hypertension presents with low back pain (LBP) following a fall. Health history indicates she is a former high school cross-country runner who currently runs seven miles on at least four days each week. She takes sixteen daily doses of anti-hypertensive medications. She is a nonsmoker, who uses little alcohol, minimal caffeine, and does not use birth control medications. She has no signs or symptoms consistent with diabetes. There is no family history of hypertension.

**PHYSICAL EXAMINATION:** HT: 66.9 inches, WT: 132.3 pounds. Body Mass Index 20.7. Pulse 66 BPM strong and regular. Patient's self monitored averaged daily blood pressure on running days is 160/90 and on non-run days 190/100. Fixation of the right sacroiliac joint and localized right inferior 1/5 lumbar paravertebral muscle spasm was evident. No deficit was identified in lower extremity circulation, superficial sensation or motor function.

### DIFFERENTIAL DIAGNOSIS:

1. Primary or essential hypertension.
2. Secondary hypertension from renal, vascular, endocrine, neurogenic, or drug/toxin sources.
3. Mechanical Low Back Pain

**TEST AND RESULTS:** Serial clinical and self studied blood pressure examinations demonstrated a steady and unchanging pattern of serious hypertension. Computerized Tomography of the abdomen was obtained and this study revealed a right sided adrenal tumor.

**FINAL DIAGNOSIS:** Primary hyperaldosteronism associated with a right sided aldosterone producing adenoma.

**TREATMENT:** The patient was referred to a nephrologist. Surgical intervention in the form of a partial right adrenalectomy resulted in the patient becoming normotensive without medication. She is now one year post surgery and she continues to be asymptomatic and normotensive while running seven miles four times per week.