

Abstract: Most cases of primary aldosteronism (PA) is due to unilateral aldosterone producing adenoma or bilateral adrenal hyperplasia. Rarely it can be due to unilateral adrenal hyperplasia or adrenal carcinoma. The diagnosis of each subtype of primary aldosteronism remains a clinical challenge but this differentiation of subtypes are critical as it determine the treatment with medical and surgical options resulting in significant clinical improvement.

Here is an interesting case of a 19-year-old male who developed resistant hypertension in the context of unilateral adrenal hyperplasia. Our patient developed sudden onset shortness of breath and high blood pressure following an emergency laparotomy, who was previously normotensive. He was found to have metabolic alkalosis and severe hypokalemia, so further investigations were ordered to detect secondary causes of hypertension. CECT scan of the abdomen showed left adrenal hyperplasia. The patient was started on multiple medications to control his blood pressure including spironolactone and referred for bilateral adrenalectomy. Primary aldosteronism carries high cardiovascular morbidity due to activation of cardiac mineralocorticoid receptors. Evidence suggest that early intervention and treatment will reduce those negative cardiac effects. This case highlights the importance of investigating secondary causes of hypertension in young patients to detect potentially treatable causes and thereby reducing adverse cardiac effects.