

ROLE OF THE NURSE IN DIAGNOSIS AND TREATMENT OF PATIENTS WITH PRIMARY ALDOSTERONISM – ADRENAL VEIN SAMPLING CASE REPORT

Mirjana Mihalib, Zrinka Dika

University Hospital Centre Zagreb, Croatia, Department of Nephrology, Arterial Hypertension, Dialysis and Transplantation

Introduction

Nonsuppressible (primary) hypersecretion of aldosterone is an underdiagnosed cause of hypertension. The classic presenting signs of primary aldosteronism (PA) are hypertension and hypokalemia. The most common subtypes of PA are aldosterone-producing adenomas (APAs) and bilateral idiopathic hyperaldosteronism (IHA). Adrenal vein sampling (AVS) is a standard confirmatory test for unilateral adrenal disease and unilateral adrenalectomy is a treatment of choice in these patients.

Methods

32-year-old man with 10-year history of arterial hypertension was admitted to our Hypertension unit for evaluation of resistant hypertension. Previous medical records showed adrenal tumor, but no further investigation was performed. At admission he was hypertensive (210/160 mmHg) despite multidrug antihypertensive treatment, with pronounced hypokalemia. After hypokalemia was corrected with potassium supplementation and thiazide discontinued, measurement of the plasma renin activity (PRA) and plasma aldosterone concentration (PAC) in blood samples and saline infusion test were performed. Adrenal CT showed same sized tumor in right gland. AVS with cosyntropin stimulation was performed to confirm unilateral disease.

Results

PAC/PRA ratio was ≥ 30 and saline infusion test was positive (no suppression). Measurement of aldosterone in samples of AVS, obtained by an experienced radiologist, showed marked increase in PAC on the side of the tumor. Laparoscopic adrenalectomy was performed. Postoperative blood pressure was significantly lower and less antihypertensive drugs were needed for blood pressure control.



Conclusion

PA is a common cause of resistant secondary hypertension. Multidisciplinary approach is crucial for diagnosis and treatment of the disease and nurses play a very important role in all of them.