

A CASE REPORT ON PRIMARY ALDOSTERONISM CAUSING HYPERTENSION WITH HYPOKALEMIA IN A YOUNG PATIENT

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Abstract- Primary Aldosteronism (PA) is the most common secondary cause of hypertension. Prevalence of primary aldosteronism in Asia Indian patients with hypertension and type 2 diabetes mellitus is 4.1%. PA can often go undiagnosed and the treatment is specific to individual cases. In this case study, a 24-year-old male, presented with complaints of recurrent attack of headache, visual disturbances and episodes of hypertension for 1 year.

Keywords: Primary aldosteronism, Hypertension, Hypokalemia, Aldosterone, Aldosterone and renin ratio

INTRODUCTION:

Primary Aldosteronism occurs when adrenal glands produce insuppressible aldosterone release. PA is also known as “Conn’s syndrome”. Prevalence of primary aldosteronism in Asia Indian patients with hypertension and type 2 diabetes mellitus is 4.1%. This condition results in high blood pressure and low renin rates. Clinical features experienced by patients with PA are high blood pressure, severe headache, fatigue, hypokalemia, muscle weakness, palpitation and numbness. Hypokalemia has considered as the major indicator in the diagnosis of the primary aldosteronism. Nearly all the patients are usually asymptomatic. Most common cause of PA is bilateral adrenal hyperplasia (2/3rd patients), remaining may due to tumor in the zona glomerulosa. PA can often go undiagnosed and the treatment is specific to individual cases.

CASE REPORT:

A 24 year old male patient was admitted with complaints of recurrent attack of headache, visual disturbances and episodes of hypertension one year. His old report showed hypokalemia, low T3 and T4 with normal TSH. He had past clinical history of hypertension and was taking Metoprolol succinate 50 mg. General examination revealed conscious, oriented and blood pressure seemed to be elevated (134/100mmHg). His laboratory investigation were found to be normal. Here USG Abdomen and pelvis showed Grade I fatty liver. Metanephrines fractionated, 24 hour urine test were within normal range.

Initially patient was started with IV fluid normal saline and continue own medications (T. Metoprolol Succinate). During the treatment, his blood pressure was became normal. At the time of discharge the patient was symptomatically better. The Plasma aldosterone/ renin ratio screening test showed 38.4 this revealed that he was suffering from primary aldosteronism. But he does not came for review after the discharge and take any treatment on the specific condition.

DISCUSSION

The patient presented with symptoms of recurrent attack of headache, visual disturbances and episodes of hypertension for 1 year and older investigations showed hypokalemia, low T3 and T4 with normal TSH. The Plasma aldosterone/ renin ratio screening test revealed primary aldosteronism. The points which favor the diagnosis of PA are hypokalemia and high blood pressure, visual disturbances and headache. Patient started the IV fluid normal saline and his own medication (T. Metoprolol Succinate). He had hospitalized for three days and was discharged. He can be treated with spironolactone which was considered as the first line treatment for PA.

CONCLUSION

Primary aldosteronism is a rare cause of hypertension and it is seemed to be in young or middle aged hypertensive patients. Here the patient presented with symptoms of recurrent attack of headache, visual disturbances and episodes of hypertension for 1 year. The clinical findings of this patient could help to confirm primary aldosteronism. Patient was started with IV fluid normal saline and continue own medications.

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