A case of aldosteron-secreting giant adrenal carcinoma: A case report

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Introduction:
Primary aldosteronism is presented with signs of hypertension and hypokalemia classically, however, primary adrenal carcinoma is very rare condition. We aimed to present a patient with a metastatic adrenal carcinoma after the primary diagnosis of hyperaldosteronism.

Case report:
A 46 years old male patient was referred to our hospital with weakness, dry mouth and weight loss. He had lost weight as 31 pounds during last three months. Physical examination revealed diffuse cracks in lungs. The others system examination was found normal without any organomegaly or lymphadenopathy. Arterial tension was measured 170/100mmHg, serum sodium 140meq/dl, potassium 1.3meq/dl at admission. Differential diagnosis was planned on uncontrolled hypertension and persistent hypokalemia with elevated aldosterone levels as 753ng/dl (3-28ng/dl) and low renin levels as 0.57ng/ml/h (0.65-5ng/ml/h), respectively. After potassium replacement therapy, potassium was 3.1 meq/dl. Doxazosin 8mg/day with spironolactone 100 mg/day was started. Supression was established with 1 mg dexamethasone in cortisol level.

In thorax-abdominal CT was showed bilateral diffuse nodules (biggest was nearly ~2.5 cm) in lungs were consisted with metastatic cancer (figure 1). A giant mass with 12 cm diameter in suprarenal region, which involves liver partially, consisted with adrenal gland tumor was determined (figure 2). The miliary tuberculosis ruled out by bronchoscopy. Metastatic multiple hyper-metabolic lesions in lungs and hyper-metabolic mass in surnreal region were detected in positron emission tomography. Fine needle aspiration biopsy was performed from right surnreal mass with CT scan. Pathology revealed adrenocortical carcinoma. Chemotherapy (mitotane) was the chosen treatment because of the distant metastases. Patient died during the chemotherapy.

Figure 1. In PA-Chest radiography and thorax-CT were showed bilateral diffuse nodules (biggest was nearly ~2.5 cm) in lungs.

Figure 2. In abdominal CT was showed a giant mass with 12 cm diameter in suprarenal region, which involves liver partially, consisted with adrenal gland tumor was determined.

Conclusions:
Primary adrenal carcinoma is very rare with annual incidence of 1 per 1 million population. Fewer than %1 of all secrete aldosterone. Also clinicians should be aware that primary hyperaldosteronism can occur in the context of adrenocortical carcinoma.