

ADRENAL FAILURE SECONDARY TO BILATERAL ADRENAL METASTASIS AS A PRESENTING FEATURE OF LUNG CANCER: A CASE REPORT

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Introduction

Metastatic infiltration of the adrenal glands is a common finding of malignancies, probably because of their rich blood supply. Autopsy studies have shown that, nearly % 40 of lung cancers are associated with metastasis to adrenals.¹ But few case reports showed primary adrenal insufficiency being the presenting manifestation of underlying malignant tumors. Here, we report a case of adrenal insufficiency secondary to metastases from lung adenocarcinoma.

Case Report

A 69-year-old man was admitted to emergency department with weakness, altered mental status, hypotension, fever and weight loss. He had 100 pack-year history of smoking. At the time of presentation, physical examination revealed a blood pressure of 80/40mmHg, subfebrile fever of 37.2°C and abdominal tenderness. His skin was hyperpigmented and cachectic appearance was recorded. The initial laboratory evaluation revealed hyperkalemia, hyponatremia and elevated creatinine levels. During initial evaluation cardiac arrest occurred and the patient was resuscitated successfully. Echocardiography showed massive pericardial effusion. Pericardiocentesis was performed and biochemical analysis of pericardial fluid showed exudate fluid characteristics. After blood samples were obtained for adrenocorticotrophic hormone and cortisol measurement, intravenous methylprednisolone and saline infusion were administered. After administration of steroid therapy, patient status improved within a few hours. Serum cortisol and ACTH were, respectively, 0.4 µg/dL (6.2–19.4 µg/dL) and 716 pg/mL (0–46 pg/mL). Abdominal imaging revealed multiple lesions in both adrenals, measuring 4 cm in greatest diameter.(Figure 1) Thoracic computed tomography showed right hilar mass and multiple mediastinal lymph nodes. Pulmonary adenocarcinoma was diagnosed with trans bronchial biopsy. Patient was switched to oral hydrocortisone and fludrocortisone therapy. He was referred to oncology department and chemotherapy was planned for his primary disease.

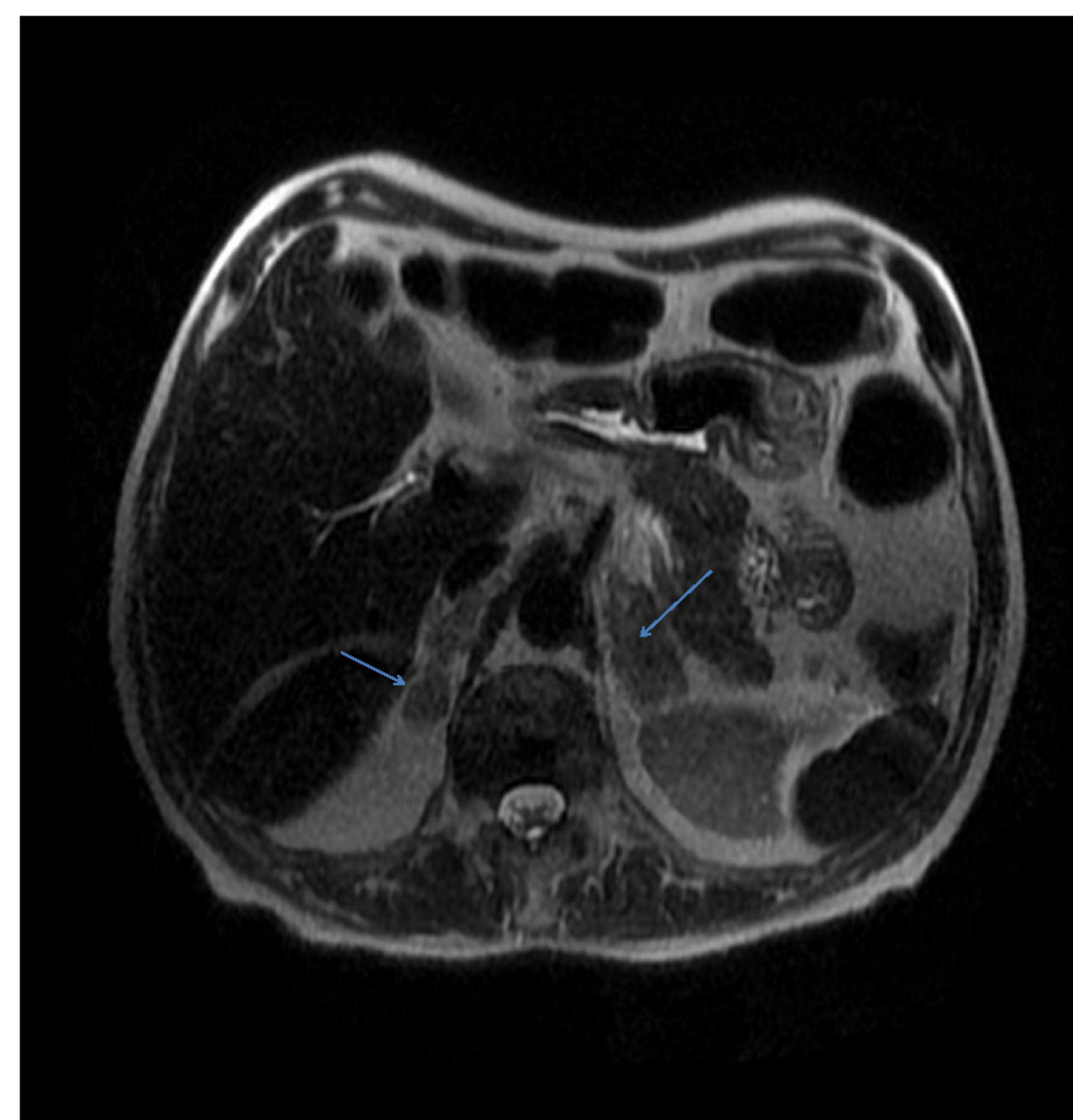


Figure 1. Magnetic resonance imaging of adrenal glands showed bilateral adrenal metastasis

Discussion

Metastatic infiltration of the adrenal glands is a common finding in malignant tumors. The most common primary tumor sites are breast, lung, stomach, esophagus, kidney, rectum and colon.^{2,3} Although metastasis to adrenal glands is relatively common, they are usually without clinical significance.⁴ Adrenal insufficiency may cause clinical features such as weight loss, fatigue, weakness, abdominal pain, nausea, vomiting, anorexia which could also be seen in malignancy. The diagnosis can be overlooked if not suspected clinically.⁵ The diagnosis of adrenal insufficiency due to adrenal metastasis should be considered in patients with constitutional symptoms, as mentioned above. Replacement therapy with glucocorticoids and mineralocorticoids should be initiated and maintained as soon as the diagnosis of adrenal insufficiency is suspected.

Reference

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