Giant lipoma of the adrenal gland: a case report

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Abstract
Introduction: Lipoma of the adrenal gland is rare with a reported incidence of between 2% to 4%. Improved imaging techniques have helped in the diagnosis of these lesions.

Case presentation: We report an incidentally detected giant adrenal lipoma in a 43-year-old Asian man with a six year history of hypertension. He had a myocardial infarction one year earlier, for which he was taking an antiplatelet agent in addition to antihypertensive medication.

The tumor was detected by computed tomography and magnetic resonance imaging, and was a large, well-defined, altered signal intensity lesion 12 cm in size in the right suprarenal region. The tumor was resected laparoscopically and sent for histopathologic evaluation. It measured 15 cm × 11.5 cm × 6.5 cm on gross examination, weighed 810 g and had a homogenous yellow cut surface. The postoperative course was smooth. Microscopy revealed mature adipose tissue with myxoid degeneration. Over the course of a four month follow-up the patient recovered.

Conclusion: Giant lipoma of the adrenal gland, a benign tumor, is rare compared with myelolipoma. Improved radiologic modalities have led to increased reporting of these benign tumors. Laparoscopic removal of the tumor has helped in early recovery and in reinstating patients to normal lives.
The external surface was smooth and grey-yellow colored, and the adjacent adrenal gland measuring 6 × 1.5 × 0.5 cm in size was unremarkable. The cut surface was homogenous, yellow and fatty with myxomatous areas or a jelly-like appearance and soft to firm in consistency. Microscopy revealed a well-encapsulated tumor composed of mature adipose tissue with myxoid degenerative changes and normal adrenal parenchyma (Figure 2B).

The patient had an uneventful postoperative course and is stable with the same medications continued for one month. The patient is now taking a beta-blocker and antiplatelet agents, and he has stopped taking the alpha-blocker and diuretic that he needed previously for blood pressure control.

Discussion
Adrenal lipomas are benign tumors with a reported incidence of 2% to 4% of all adrenal tumors [1-4]. The differential diagnoses include myelolipoma, angiomyolipoma, liposarcoma and teratoma. The histogenesis of these mesenchymal tumors is still little understood. Lipomas are known to occur on the right side with male predominance as opposed to myelolipomas, which have no gender or site predilection. The size of these tumors is usually smaller than 4 cm; however, the term giant lipoma is preferred when the size exceeds 8 cm. Our patient had a tumor of more than 11 cm in diameter, thus falling in the category of “giant adrenal lipoma.” No calcification was noted despite the lipoma’s large size.

Conclusion
Giant adrenal lipomas are rare but are being reported more frequently because of improved modern imaging technologies. This tumor was removed with the rarely reported technique of transperitoneal laparoscopic adrenalectomy and was confirmed histologically.

Consent
Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

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Authors’ contributions
ROP was the major contributor in writing the manuscript and analysis and interpretation of patient data regarding the histopathologic disease. AVV performed the histologic examination and helped in preparation of the final manuscript. PRM did the transperitoneal laparoscopic adrenalectomy and postoperative follow-up of the patient. All authors read and approved the final manuscript.

Competing interests
The authors declare that they have no competing interests.

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