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Visual Vignette

An Adrenal Myelolipoma With Hemorrhage

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Case Presentation

An 80-year-old man with a history of abdominal aortic aneurysm presented after a large left adrenal mass was found on surveillance ultrasonography. A subsequent abdominal and pelvic computed tomography (CT) scan revealed a 15-cm heterogeneous, round mass with a small internal fat component (Fig. 1A) with evidence of focal active extravasation of contrast within the mass consistent with active hemorrhage (Fig. 1B). On his CT 4 years prior, the adrenal lesion measured 4.9 cm and had areas of macroscopic fat and punctate calcifications consistent with a myelolipoma. On presentation, he was hemodynamically stable with normal blood pressure. An endocrinologic evaluation revealed a nonfunctioning lesion. A subsequent abdominal magnetic resonance imaging scan demonstrated a 15.0 × 13.0-cm left adrenal mass with a rim of heterogeneous signal intensity with a frond-like pattern surrounding a large central region of T1 hyperintensity compatible with hemorrhage (Fig. 2). Because of the tumor's large size and risk of rupture, the patient underwent an uncomplicated left adrenalectomy. Pathologic examination revealed hematopoietic elements and intracapsular adipose tissue (Fig. 3) with abundant hemorrhage and clot.

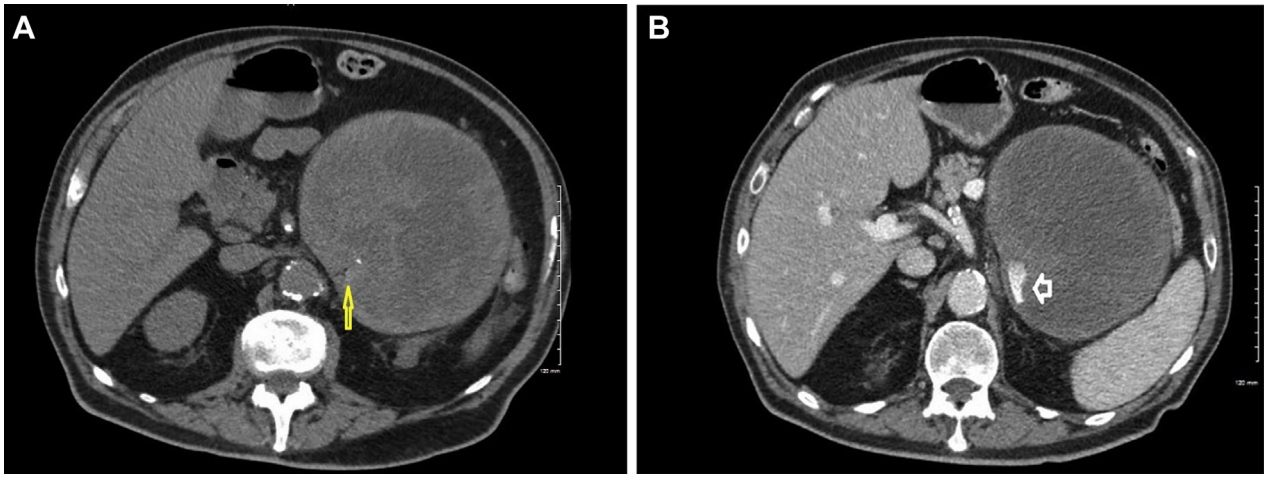

Fig. 1.

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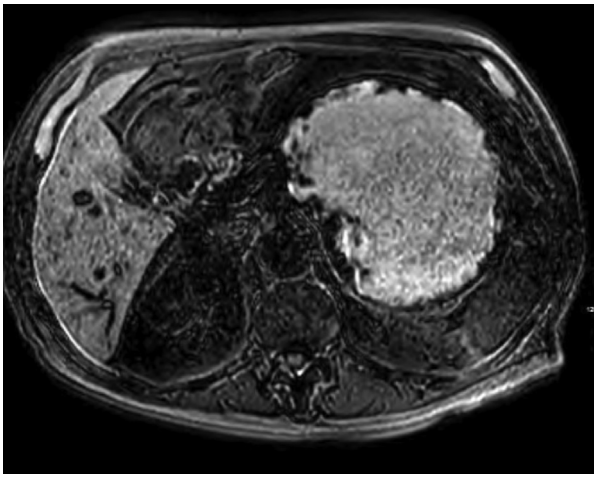

Fig. 2.

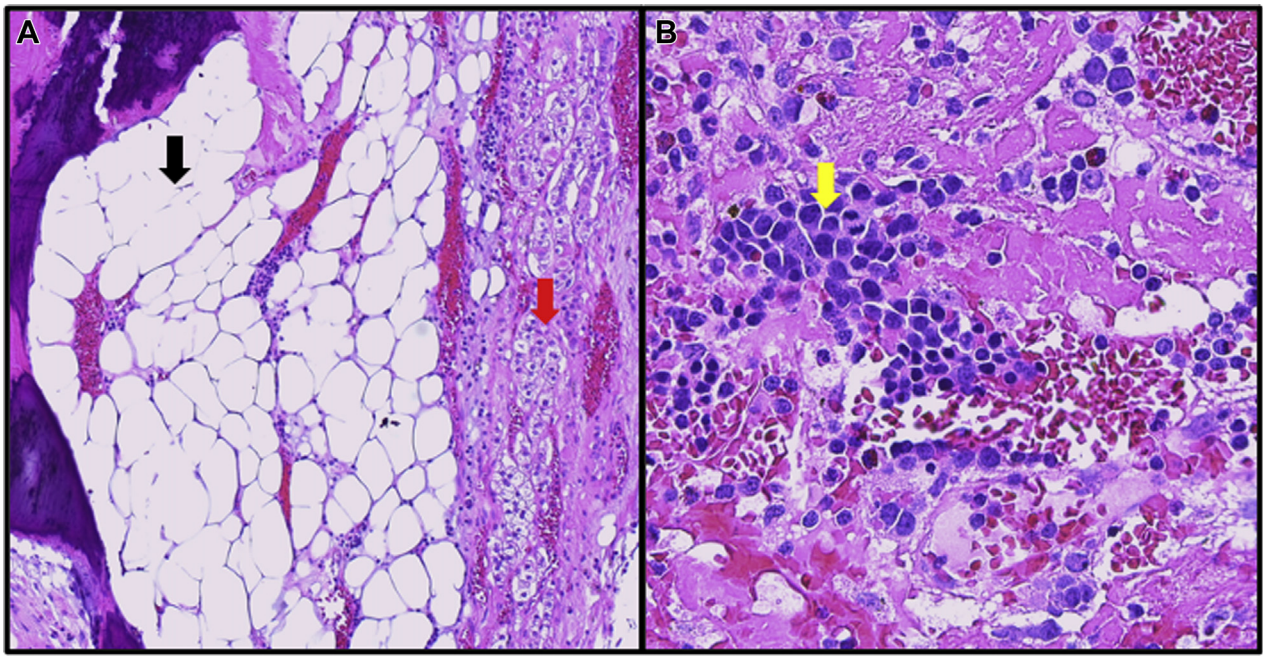

Fig. 3.

What is the diagnosis?
Answer: An Adrenal Myelolipoma with Hemorrhage

Myelolipomas are benign neoplasms of the adrenal gland and the second most common adrenal incidentaloma following adrenocortical adenomas. The incidence of myelolipoma is between 0.08% and 0.4% in autopsy series.[1] The pathologic features of myelolipomas include the presence of both mature adipocytes and hematopoietic cells. They are generally <5 cm; however, they may grow to over 30 cm. Myelolipomas are considered giant when the tumor size is >10 cm. To date, <100 cases of giant myelolipomas have been reported. The large size of the adrenal myelolipoma in our case was partly due to hemorrhage. Typically, large myelolipomas may be associated with compressive symptoms; however, the most catastrophic complication is intratumoral hemorrhage, which may lead to retroperitoneal bleeding. Although rare, intratumoral hemorrhage (Figs. 1B and 2) did occur in our patient.[2] Adrenal myelolipomas are often diagnosed using imaging modalities such as CT and magnetic resonance imaging because of their characteristic appearance of a well-marginated mass, with variable amounts of fat-containing components. The masses frequently have a recognizable capsule, and calcifications can occur in approximately 20% of cases. A thorough hormonal evaluation excluding hormonal excess is essential, given that hormonal excess and associated endocrine disorders are detected in 7% of myelolipomas. Tumors <5 cm can be managed conservatively with repeat imaging every 1 to 2 years. Tumor resection is indicated when patients are symptomatic, tumor size is >7 cms, or if there is a concern for tumor rupture.[3]

Disclosure

The authors have no multiplicity of interest to disclose.

References

1. Adapa S, Naramala S, Gayam V, et al. Adrenal incidentaloma: challenges in diagnosing adrenal myelolipoma. *J Investig Med High Impact Case Rep*. 2019;7:2324709619870311.
2. Liu HP, Chang WY, Chien ST, et al. Intra-abdominal bleeding with hemorrhagic shock: a case of adrenal myelolipoma and review of literature. *BMC Surg*. 2017;17(1):74.
3. Gershuni VM, Bittner IV JG, Moley JF, Brunt LM. Adrenal myelolipoma: operative indications and outcomes. *J Laparoendosc Adv Surg Tech A*. 2014;24(1):8–12.