10.1053.paor.2001.0267 available online at http://www.idealibrary.com on IDEAL

CASE REPORT

Giant Adrenal Myelolipoma

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Authors present a case of giant adrenal myelolipoma, where the tumor was hormonally inactive but caused abdominal and flank pain. The huge tumor, a 20x18x10 cm mass, was surgically removed. The ipsilateral kidney was preserved. (Pathology Oncology Research Vol 7, No 1, 72–73, 2001)

Keywords: adrenal gland, tumor, myelolipoma

Myelolipomas of the adrenal gland are very rare, diagnosed mainly at autopsy if asymptomatic.[1,2,10] Large adrenal myelolipomas can produce flank pain, abdominal dyscomfort and hemorrhage, in which case surgical exploration is needed.[3] Here, a case of a large symptomatic adrenal myelolipoma is presented.

Case report

A 50-year-old woman was admitted to Department of Urology with intermittent right flank pain and abdominal dyscomfort. There was no history of any significant urological disease. Physical examination revelaled a palpable mass in the right abdomen. Urinanalysis and other laboratory tests were normal. Computerized tomography showed a large right retroperitoneal mass above the right kidney which was significantly dislocated: Diagnosis: right adrenal tumor (*Figure 1*).

Thoracoabdominal surgical exploration was performed and the 1650 g huge tumor was removed. It was separate from the right kidney, so the kidney could be preserved. Half of the fat capsule of the kidney was removed along with the tumor (*Figure 2*).

The operation lasted 90 min and no morbidity or significant blood loss were detected. The patient left our Department of the 8 th postoperative day. Histological diagnosis: myelolipoma of adrenal gland (*Figure 3*).

Received: March 30, 2000; *revised:* Dec 15, 2000; *accepted:* Jan 10, 2001

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Discussion

Adrenal myelolipoma is an uncommon benign tumor. It was first described in 1905 by Gierke[11] and the name „myelolipoma“ was coined by Oberling.[12] Its frequency autopsy rangies from 0,08 to 0,4%.[4] Most cases are discovered incidentally at autopsy.[7] It varies in size from microscopic foci to 8 cm in diameter.[8]

Giant mass of adrenal myelolipoma is very rare clinical entity. Most ages of affected patients are in their fourth to sixth decade.[9]

Its cause is unknown. It is thought to arise in the zona fasciculata of the adrenal cortex.[7] Theories of pathogenesis include retention of embryonic rests, or extramedullary hematopoiesis. These tumors are composed of fat and hemo-

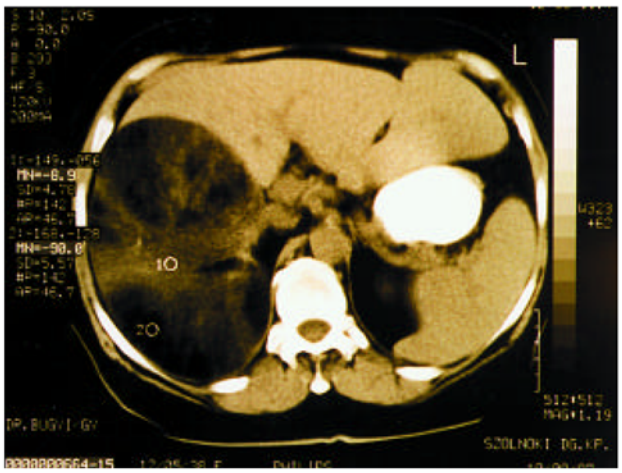

Figure 1. *Computerized tomography: large right retroperitoneal tumor with fatty elements.*

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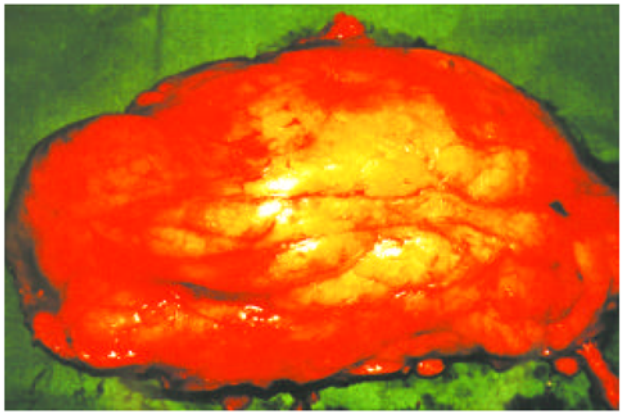

Figure 2. *Surgically removed 20x14 cm sized tumor*

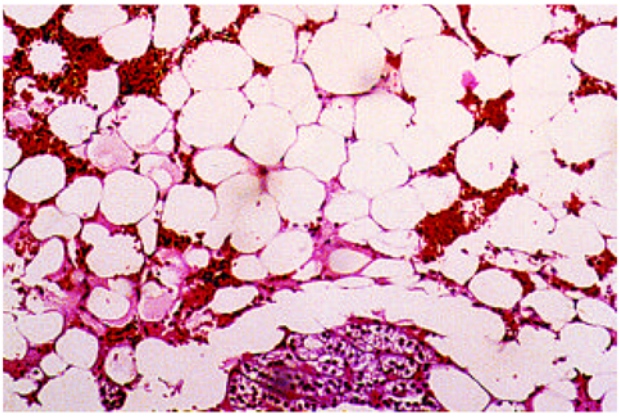

Figure 3. *Histological section of tumor demonstrates hematopoietic tissue (x400).*

poietic elements so the theoretical possibilities of pathogenesis also include bone marrow embolization. The most favourable theory is of metaplastic origin.[5] Microscopically, adrenal myelolipoma consists of hematopoietic, lipoid and reticulum cells in fatty areas and myeloid precursors – megakariocytes – as well. Hemorrhage and calcification may be present. Most adrenal myelolipomas are asymptomatic, diagnosed accidentally during imaging procedures.[3] However, rare cases are large and cause compression of the adjacent organs, hemorrhage or flank pain – as in our case.

The differential diagnosis includes renal angiomyolipoma, retroperitoneal lipoma, liposarcoma.[6] CT and sonography are sensitive and valuable techniques in the imaging and diagnosis of these fatty tumors of the adrenal gland. When myeloid material, calcification or hemorrhage is too extensive, the fat content may not be recognized. Such a tumor may be indistinguishable from other adrenal neoplasms, and can only be suggested by the presence of mature fat.[9] In this case, fine-needle aspiration is indicated as a procedure with little associated morbidity. In our case the huge, symptomatic tumor required surgical removal[3] and biopsy, was notdone.

This one of the rare cases of which the tumor removing was possible and the kidney could be preserved.

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