

Giant symptomatic adrenal lipoma, a case report

Dev semptomatik adrenal lipom, bir olgu sunumu

Fariba Abbasi^{1,3}, Rahim Mahmudlu², Ayda Gheibi³, Makan Rezaie³

¹Solid Tumor Research Center, Urmia University of Medical Sciences, Urmia, Iran

²Department of Surgery, Faculty of Medicine, Urmia University of Medical Sciences, Urmia, Iran

³Department of Pathology, Faculty of Medicine, Urmia University of Medical Sciences, Urmia, Iran

Abstract

Adrenal lipomas are rare, small, usually nonfunctional tumors with an incidence of 2-4%. Most cases have been found incidentally during investigation for unrelated problems or autopsy. We report a 76 years old woman with symptomatic right sided giant adrenal lipoma of 17 cm in diameter presented with abdominal pain.

Keywords: Adrenal gland; giant; lipoma

Özet

Adrenal lipomlar insidansı %2-4 olan nadir, küçük, genellikle fonksiyonel olmayan tümörlerdir. Olguların çoğu otopsi veya ilgisiz problemlerin araştırılması sırasında tesadüfen bulunur. Biz, abdominal ağrısı olan 17 cm çapında semptomatik sağ taraflı dev adrenal lipomlu 76 yaşındaki kadını sunuyoruz.

Anahtar kelimeler: Adrenal bez; dev; lipom

Introduction

Lipomatous adrenal tumors are rare, nonfunctional, mostly benign tumors comprising 4-5% of primary adrenal tumors (1,2). These tumors include myelolipoma, angiomyolipoma, lipoma, mature teratoma and extremely rare liposarcoma are asymptomatic, discovered incidentally during the investigation of unrelated problems by radiographic or postmortem examinations as incidentalomas (1-5). Prevalence of these tumors increases with age (6,7).

The most common type of benign lipomatous tumors of adrenal gland is myelolipoma (1,8). Lipoma is extremely rare with an incidence of 2-4% (1,9,10). It is usually small, measuring less than 4 cm (3,10,11). Tumor larger than 8 cm in diameter called giant lipoma (10).

We report a 76 years old woman with giant adrenal lipoma who suffered from abdominal pain. The rarity of this tumor, symptomatic presentation, large size and female sex of the patient merit documentation in the literature.

Case Report

A 76 years old woman admitted with abdominal pain for 5 years. MRI showed right sided retroperitoneal mass of 16 cm in diameter with lipid content (Figure 1). Other organs were unremarkable. Routine paraclinical tests, such as CBC, liver and renal function tests, electrolytes, vanillylmandelic acid, metanephrine, normetanephrine levels were within

normal limits. Renin activity was 0.9. The patient went under operation and the large tumor of the right adrenal gland was excised. Gross examination showed a well defined yellowish-orange fatty tissue mass measured 17 cm in diameter and weighed 490 gram (Figure 2). No definable adrenal gland is seen grossly. Cut surface is homogenous yellowish in color. Areas of hemorrhage were also seen (Figure 3). Microscopic examination showed proliferated mature adipocytes intermingled with adrenal gland tissue in peripheral portions. Hemorrhage was seen here and there (Figure 4). These histologic features and large size of the tumor consisted with the diagnosis of giant lipoma of adrenal gland.

Five months follow up of the patient showed no post-operative complication and no recurrence of the tumor.

Discussion

Adrenal lipoma is a very rare nonfunctional tumor with unknown pathogenesis (12). However, with widespread use of imaging techniques more such asymptomatic masses have been discovered, recently (3,13). Uncommonly, patients show symptoms such as abdominal pain, biliary colic, lumbar pain or nephropathy and hypertension (12-14). Our patient suffered from abdominal pain, too. It seems that the choice method of imaging studies for evaluation of adrenal gland is CT imaging (13). However, this method may underestimate the actual size of the tumor (13). Therefore, MRI has recently used widely for this purpose (13). In the case of our patient, MRI showed right sided retroperitoneal mass of 16 cm in diameter, compressing the right kidney inferiorly. Lipoma mostly occurs on the right side

Correspondence: Fariba Abbasi, Solid Tumor Research Center, Urmia University of Medical Sciences, Urmia, Iran
Tel: 00 98 914 1452352 faribaak2002@yahoo.com

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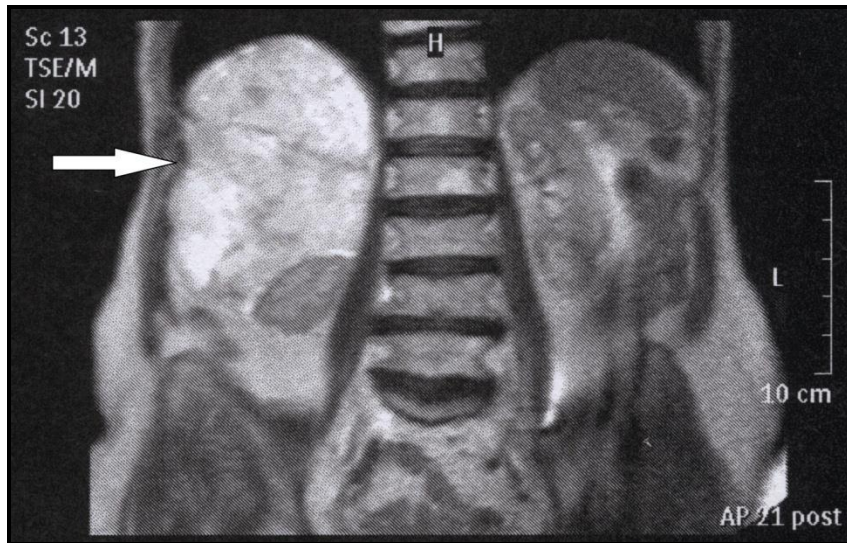


Figure 1. MRI showing right sided retroperitoneal mass (arrow).



Figure 2. Macroscopic examination showed a well circumscribed tumor of 17 cm in diameter.

with male predominance (15). Similarly, in this case the tumor occurred in right side but the patient is female. Adrenal lipomas have been reported from eastern countries, mostly (15). Our patient is from an eastern country (Iran), too.

Other lipomatous tumors including myelolipoma, angiomyolipoma, liposarcoma and also teratoma should be excluded as differential diagnoses of the adrenal lipoma (8). Microscopically, myelolipoma contains admixture of adipose tissue and bone marrow elements (8). Angiomyolipoma is a heterogenous mass composed of epithelioid and spindle cells separated by thick walled blood vessels (3). In diagnosis of liposarcoma, presence of lipoblasts is necessary (8). Teratoma is a tumor

composed of mature tissues arising from more than one germinal layer (3).

We excluded the myelolipoma by the absence of hematopoietic elements in multiple sections of the tumor. Also, no spindle and epithelioid cells proliferation with thick walled vessels and no mature tissues of more than one germinal layer were seen. So, angiomyolipoma and mature teratoma were not suggested. The diagnosis of liposarcoma was excluded by the absence of lipoblasts.

Adrenal lipomas are usually smaller than 4 cm in diameter. Tumors exceed 8 cm in diameter are called "giant lipoma" (10). Our patient had a tumor of 17 cm in diameter thus falling in the category of giant adrenal lipoma.



Figure 3. Transverse section of the resected tumor was homogenous, yellowish in color. Hemorrhagic spots are also seen.

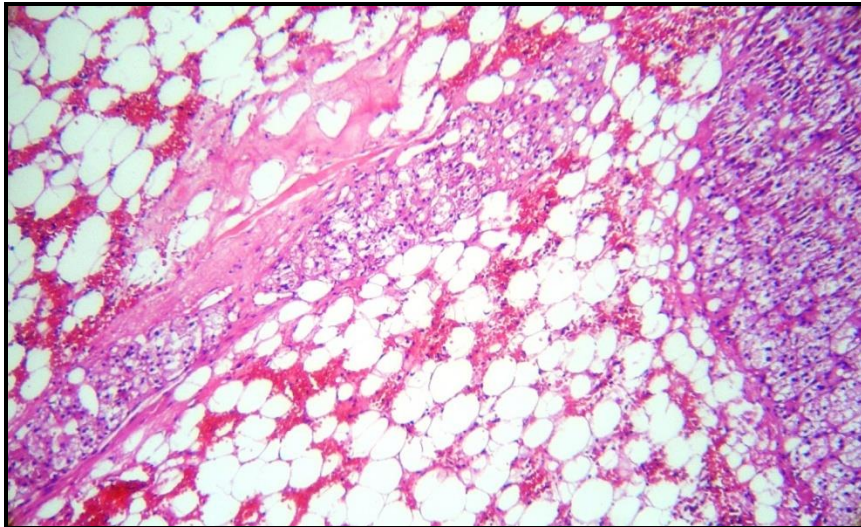


Figure 4. Microscopic examination of the tumor showed proliferation of mature adipocytes intermingled with adrenal gland parenchyma in peripheral portions.(×400)

Surgery is adopted for such large tumors because of the risk of malignancy and also relief of symptoms (3). Our patient went under surgery. After operation, she was relieved of her symptom and showed no complication. The patient discharged on the 15th day after operation with good general condition.

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