

Fortuitous Discovery of a Mature Retroperitoneal Teratoma in a Young Woman

Sidki Kenza*, Madina Rabileh, Essaber Hatim, Omor Youssef and Latib Rachida

Department of Medicine, Mohamed V University Rabat, Morocco

*Corresponding author: Sidki Kenza, Department of Medicine, Mohamed V University Rabat, Morocco

Received: October 22, 2024

Published: November 19, 2024

Abstract

Teratomas are neoplasms derived from embryonic tissues that typically arise in the gonadal and sacrococcygeal regions of adults. Primary retroperitoneal teratomas in adults are rare and present challenging management. Here, we report the case of an unusually histological retroperitoneal tumor detected by computed tomography during the distant staging evaluation of a 32-year-old woman with breast cancer. Given the necessity to treat the breast tumor, the multidisciplinary team recommended monitoring this mass in six months with a re-discussion of the case.

Keyword: Teratoma; Mature; Retroperitoneal

Commentary

Primary mature teratomas are uncommon non-seminomatous germ cell tumors derived from two or more germ layers (ectoderm, mesoderm, or endoderm). They typically arise in midline (paraxial) structures. The most common sites are gonads (testicles and ovaries), followed by extragonadal sites such as intracranial, cervical, mediastinal, retroperitoneal, and sacrococcygeal regions. Retroperitoneal teratomas are rare, comprising only 4% of all primary teratomas. They are believed to result from metastases of gonadal tissue rather than true primary tumors. The incidence peaks bimodally in the first 6 months of life and early adulthood, with only 10 to 20% of reported cases occurring in adults over 30 years old. Due to their location, they are usually identified only after reaching considerable proportions. In the literature, only a few cases have been reported so far. The majority are asymptomatic, discovered incidentally during routine examinations. Retroperitoneal teratomas can express various serum tumor markers such as elevated AFP, CEA, and CA 19-9 levels. These markers are useful in clinical practice, not only for monitoring treatment success but also for detecting relapses in patients with teratomas secreting specific tumor markers. The diagnosis of retroperitoneal teratoma can often be made based on radiological imaging. Retroperitoneal teratomas may have a predominantly cystic or completely solid appearance. CT or MRI can identify the various components of these tumors, including bone, soft tissue density structures, adipose tissue, and sebaceous and serous fluids. These imaging modalities can also show the precise location, morphology, and adjacent structures of the tumor, allowing for better preoperative planning and increasing the likelihood of complete tumor

removal with fewer iatrogenic damages. As in our case, true primary retroperitoneal teratomas in adults are usually found in the upper part of the left kidney. Surgical excision of mature (benign) teratoma is necessary to establish a definitive diagnosis by histopathological examination and is the basis of treatment. The prognosis is excellent after complete surgical excision, with a five-year overall survival rate of nearly 100%.

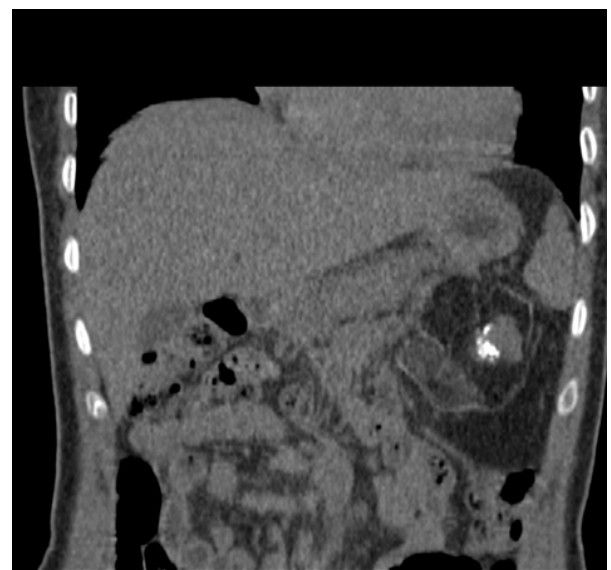


Figure 1: Coronal reconstruction of a CT scan passing through the upper abdomen in spontaneous contrast showing a retroperitoneal mass (arrow) containing multiple components, fatty, fleshy, and calcifications surrounded by a dense rim with a mass effect on the tail of the pancreas (asterisk).

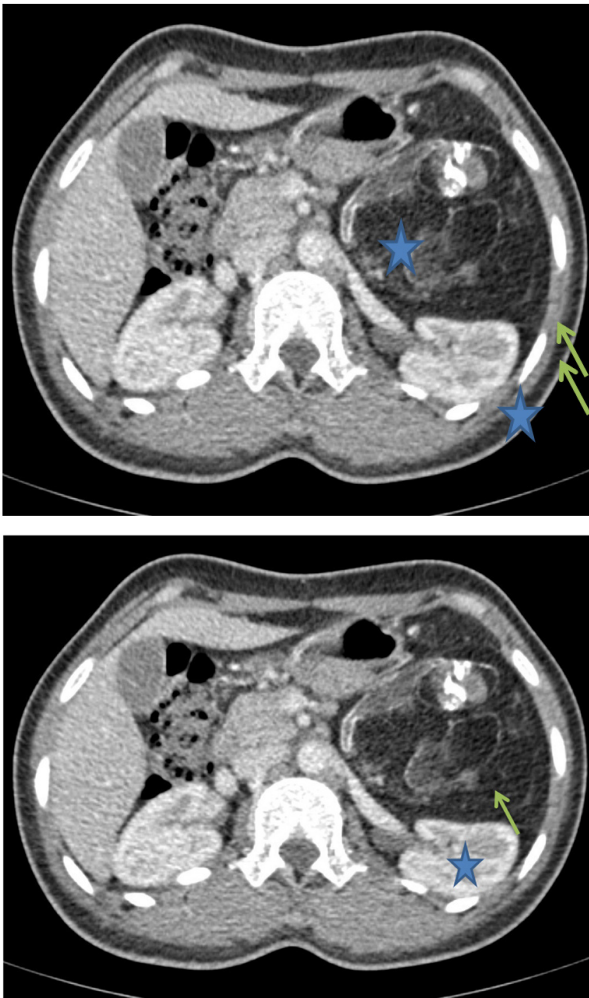


Figure 2: Axial CT scan of the upper abdominal level with contrast injection in venous phase showing the retroperitoneal location of the previously described mass with a slight mass effect on the left kidney (asterisk).

References

1. Gatcombe HG, Assikis V, Kooby D, Johnstone PAS. Primary retroperitoneal teratomas: A review of the literature. *Journal of Surgical Oncology*, 2004; 86(2): 107-113.
2. Bedri S, Erfanian K, Schwaitzberg S, Tischler AS. Mature cystic teratoma involving adrenal gland. *Endocrine Pathology*, 2002; 13(1): 59-64.
3. Panageas E. Primary retroperitoneal teratoma. *American Journal of Roentgenology*, 1991; 156(6): 1292-1294.
4. Otani M, Tsujimoto S, Miura M, Nagashima Y. Intrarenal mature cystic teratoma associated with renal dysplasia: Case report and literature review. *Pathology International*, 2001; 51(7): 560-564.
5. McKenney JK, Heerema-Mckenney A, Rouse RV. Extragonadal germ cell tumors: A review with emphasis on pathologic features, clinical prognostic variables, and differential diagnostic considerations. *Advances in Anatomic Pathology*, 2007; 14(2): 69-92.
6. Liu H, Wanmeng L, Wenlong Y, Youfei Q. Giant retroperitoneal teratoma in an adult, 2007.