Retroperitoneal teratoma in late childhood

Iyekeoretin Evbuomwan, FRCS

Abstract Teratomas have been widely reported. Retroperitoneal teratomas are rare, even more so being found in late childhood. This report is of a retroperitoneal teratoma in a 12 year old male, detected in an incidental abdominal radiograph. It was excised and found to be benign.


Keywords: Retroperitoneal teratoma.

Typically, a teratoma is a tumor involving all embryonic germ layers, viz ectoderm, mesoderm and endoderm. It is also largely accepted that a mass of tissues arising from any one of the germ layers, foreign to the tissues surrounding its location, can be classified as a teratoma. Tissues in this tumor differentiate and develop into various stages of maturity. If there are well formed recognizable organs and structures, the lesion may be classified as fetus-in-fetu, more specifically when such lesion results from inclusion of a monozygotic diamniotic twin within the bearer.

Teratoma may be found in any part of the body, but arises most commonly in the midline and para-axial locations. Retroperitoneal teratomas are rare, even more so being found in late childhood.

Case report A 12-year old Saudi male presented with severe pain in the right side of his abdomen. Onset of pain was sudden and had no specific character. On examination, the body had an average build and normal development. The abdomen felt normal, soft and vaguely tender in the right lumbar region. The liver, spleen and kidneys were not palpable. A right renal colic was suspected and a plain x-ray of the abdomen was carried out. There was no radio-opaque calculus or other features to support this diagnosis, but there was a round lesion in the right upper quadrant, posterior to the liver, with calcified wall and some calcified materials inside the lesion, one of which had the shape of a tooth. Ultrasound of the abdomen revealed a well circumscribed lesion posterior to the liver and was superior to and seemed to push down the right kidney. Abdominal computerized tomography (CT) scan showed the lesion more distinctly and highlighted the calcified wall and contents. (Figs. 1, 2). A diagnosis of "terato-dermoid mass" was made. Chest x-ray was normal, intravenous urogram was normal, hemogram and blood chemistry were normal.

The child was scheduled for laparotomy to excise the mass. The approach was through a right subcostal incision and the whole procedure was extraperitoneal. The mass had a thick well-formed wall. The vascular supply appeared to be from the posterior abdominal wall and a moderate sized supply from the 9th to 11th intercostal arteries. The mass was removed whole and intact. It was spherical and had a diameter of about 16 cms (Fig. 3). Postoperative course was uneventful.

The mass was mostly solid and partly (about one-third) cystic. Cross section showed cartilaginous tissues, tooth, skin with tuft of hair, clear fluid and greenish-straw-colored tissues and no evidence of recent hemorrhage. Microscopic sections showed ectodermal and mesodermal tissues and no evidence of malignancy.

The child has been followed up and has remained very well. Two years after the operation, an ultrasound of the abdomen was normal.

From the Department of Surgery (Evbuomwan), Pediatric Surgery Unit, Prince Abdul Rehman Al Sudairy Hospital, Sakaka, Al Jouf, Kingdom of Saudi Arabia.

Received November 1994. Accepted for publication in final form March 1996.

Address correspondence and reprint request to: Dr. Iyekeoretin Evbuomwan, PO Box 612, Sakaka, Al Jouf, Saudi Arabia.
Discussion The most common sites for teratomas are the sacrococcygeal region and the ovaries. In these sites they are diagnosed early because of the obvious external locations. Retroperitoneal teratomas are rare; they constitute less than 5% in literature series. Retroperitoneal teratomas are reportedly more common on the left side than the right and are usually unattached. Most of the reported cases were before the age of 6 years and sex incidences were approximately equal. The incidence of malignancy in retroperitoneal teratomas is 6% to 10%. As they are mostly benign tumors, surgical excision alone is adequate for treatment.

In the case presented here, the abdominal pain with which the patient presented could not be explained by the gross appearance of the mass. By its location, it did not present as an obvious mass and it could not be palpated on clinical examination. It was regarded as an incidental...
clinical/radiological finding and it took some long explaining to obtain consent for operating on an apparently healthy grown-up male child for a lesion described as being congenital and probably asymptomatic.

This case is presented to highlight that retroperitoneal teratoma can remain asymptomatic and clinically undetected. It may still be found in late childhood, or even after.

References

1. Potter EL, Craig JM. Pathology of the fetus and the infant. (Ed.3), Chicago 111. Year Book Medical 1975; 185-189.
ملخص

لقد تم تسجيل ورم ثلاثي الخلايا و تيراتوما في نطاق واسع في المراجع الطبية ولكن ورم ثلاثي الخلايا في تجويف البطن خلف الغشاء البريتوني نادر جدا وخاصة في سن الطفولة الأخيرة، هذا البحث يناقش ورم ثلاثي الخلايا و تيراتوما خلف الغشاء البريتوني لطفل ذكر عمره 12 عاما تم اكتشافه أثناء الفحوصات الروتينية بواسطة الأشعة على البطن.

لقد تم زستئصال الورم وكان الورم حميدا.