



Retroperitoneal Hygroma

Atabak Allaei¹, Erich K. Lang^{2,3}

¹ SUNY Downstate - Kings County Medical Center - Radiology, New York, NY, USA; ² Johns Hopkins Medical Institutions - Radiology, Baltimore, Maryland, USA; ³ Tulane School Medicine - Radiology, New Orleans, Louisiana, USA

ABSTRACT

We present a 46-year-old white male with a retroperitoneal hygroma protruding from the right flank.

CASE REPORT

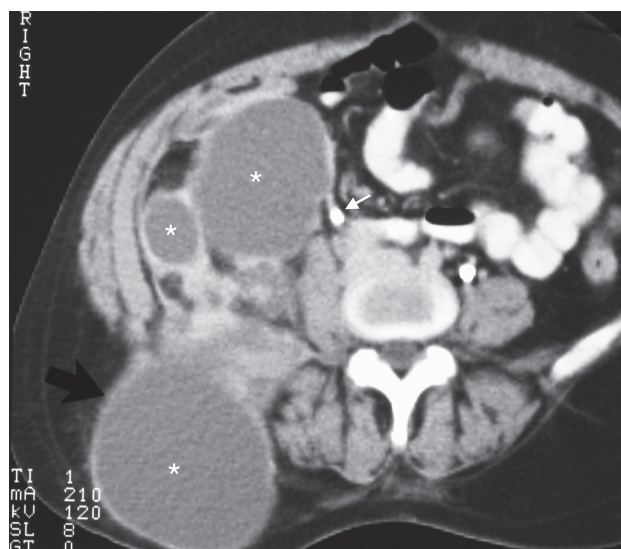
This 46-year-old white male presented at the emergency room with a history of right flank pain and a protruding mass at the right posterior flank. The flank mass became apparent two months after trauma to the back by a beam and progressively enlarged. Immediately following the traumatic episode the patient noted gross hematuria, which subsided without treatment within 10 days.

At the time of admission the patient presented with a 10x8 cm postero-lateral right flank mass, which appeared soft and compressible. The mass was only minimally tender to palpation. Laboratory values included: Hb 13.8, HCT 36, RBC 4.5 Mil, WBC 9400, BUN 28, Creatinin 2,1; urine cloudy with 5-10 WBC/hpf, 10 RBC/hpf, abundant bacteria and debris, spec gravity 1024 and temp 37.1°C. Lungs were negative to auscultation, cardiac exam was negative with vitals BP 138/82, PR 78. Urine cultures were positive for *E. coli*, and appropriate antibiotic therapy was instituted.

A coronal reconstruction of a computed tomogram (CT) post intravenous and oral contrast administration revealed cephalad displacement of the right kidney. The kidney showed normal enhancement but also moderate hydronephrosis. The uretero-pelvic junction was elevated and the right ureter was displaced medially and splayed around non-enhancing cystic retroperitoneal masses (Figure-1). Three cystic masses of variable wall-thickness (2-8 mm) were identified, measuring 7x6 cm, 7x5 cm, and 12x8 cm in the sagittal plane (Figure-2). They appeared to arise from the retroperitoneal space, but not from kidney or ureter. The wall thickness of these cysts was 2-8 mm, suggesting an inflammatory component (1, 2). The delayed CTs showed no evidence of enhancement of any of the cystic masses. The CT showed herniation of the most lower cyst through the abdominal transversalis fascia as well as posterior strap muscles. The diagnosis of retroperitoneal hygroma was made. Lack of enhancement on the delayed CTs eliminated the diagnosis of urinomas (1, 2).

A retroperitoneal hygroma is a rare benign neoplasm that occurs as a result of an abnormal connection between the lymphatic and venous systems. This lesion is classically found in the neck and axillary regions. Although usually asymptomatic they may present as low back pain in adults. Com-

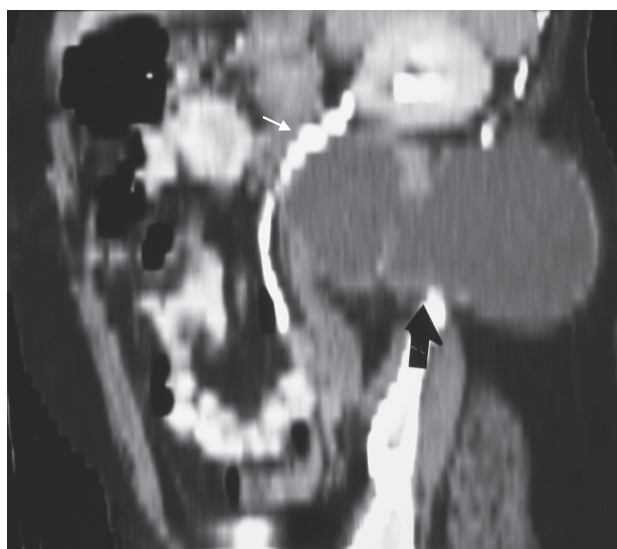
Figure 1 - Post-contrast axial CT demonstrating a medially displaced right ureter (white arrow) splayed around non-enhancing cystic retroperitoneal masses (*); herniated cyst (black arrow).



plete resection is the treatment of choice if symptomatic or causing compression of adjacent organs.

In the reported case, the hygroma was resected via a posterior approach and the posterior abdominal transversalis fascia was closed. Following completion of the antibiotic therapy for the urinary tract infection the patient made a full recovery.

Figure 2 - Sagittal reformatted post-contrast CT shows herniation of the lower most cyst herniating (black arrow) through the abdominal transversalis fascia as well as posterior strap muscles. Note anteriorly displaced ureter (white arrow).



REFERENCES

1. Black T, Guy CD, Burbridge RA. Retroperitoneal cystic lymphangioma diagnosed by endoscopic ultrasound-guided fine needle aspiration. *Clin Endosc.* 2013;46:595-7.
2. Bussink BE, van Ginhoven TM, Smit PC. Hygroma in a 23-year-old man. *BMJ Case Rep.* 2013;2013. pii: bcr2013201217.

ARTICLE INFO

Int Braz J Urol. 2015; 596-7

Submitted for publication:
September 29, 2014

Accepted after revision:
October 19, 2014

Correspondence address:

Erich K. Lang, MD
Department Radiology
Tulane School Medicine, New Orleans, LA
Johns Hopkins Medical Institutions, Baltimore, MD
89 Chateau Magdalaine
Kenner, LA 70065, USA
Fax: +1 718 245-4473
E-mail: erich.lang@downstate.edu