CASE REPORT

Abdominoscrotal Hydrocele:
an Uncommon Entity in Adults Presenting with Lower Abdominal and Scrotal Swelling

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ABSTRACT
Abdominoscrotal hydrocele is an uncommon clinical entity that is infrequently reported in adults. Abdominoscrotal hydrocele consists of scrotal and abdominal components that are connected through the inguinal canal. This report is of a 36-year-old man with abdominoscrotal hydrocele and the characteristic imaging findings are discussed.

Key Words: Adult; Testicular hydrocele; Tomography, X-ray computed; Ultrasonography

INTRODUCTION
Abdominoscrotal hydrocele (ASH) is an uncommon clinical entity, accounting for only 0.17% of all types of hydrocele.¹ ASH presents as a dumbbell-shaped giant hydrocele that occupies the scrotum and extends into the abdominal cavity through the inguinal ring, with either an intraperitoneal or retroperitoneal component. ASH is usually unilateral, but bilateral involvement has also been described.² This report is of a patient with an ASH extending from the abdomen to the scrotal region through the right inguinal canal.

CASE REPORT
A 36-year-old previously healthy man presented in 2005 with insidious onset of lower abdominal and scrotal swelling, associated with a dull dragging pain. He had no history of fever or trauma.

At clinical examination, there was a mildly tender lump in the right iliac region, which extended cranially towards the umbilicus and caudally into the right inguinal region (Figure 1). Cross fluctuation was demonstrated between the abdominal and scrotal swelling. The right testis was not palpable but the left testis was normal.

An urgent ultrasound examination showed a large anechoic cystic lesion extending from the abdomen to the scrotal region through the right inguinal canal (Figure 2a). Both testes were present and were normal in size (Figure 2b). The right kidney showed mild hydronephrosis. Coronal reformatted computed tomography (CT) confirmed and delineated the extent of the ASH (Figure 3). The patient underwent uneventful excision of the hydrocele sac through an inguinal approach.

Figure 1. Abdominoscrotal swelling in the right lower quadrant of the abdomen extending into the right groin and scrotum.
DISCUSSION

Dupuytren first described ASH in 1834 as ‘hydrocele enbissac’ (collections of fluid in the tunica vaginalis, which extends from the scrotum to the abdominal cavity). The proposed pathogenesis of ASH is related to partial obliteration of the processus vaginalis, which serves as a 1-way valve to ‘pump up’ the scrotal portion of the hydrocele with intraperitoneal fluid during episodes of high intra-abdominal pressure. At times, when the intrascrotal pressure exceeds the intra-abdominal

Complications of ASH are common and are usually secondary to pressure effects on the adjacent structures, such as hydronephrosis or unilateral leg oedema as a result of compression on the ureter and iliac vein, respectively. Imaging would be useful to rule out complications. Rarely, morphological testicular changes and interference with spermatogenesis has been reported.

In conclusion, ASH is an uncommon entity of hydrocele, but the imaging features on both ultrasound and
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CT are characteristic so the correct diagnosis can be obtained.

REFERENCES