

# Undescended Testis Causing Retroperitoneal Mass

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The finding of a retroperitoneal mass should always be thoroughly evaluated, and until proven otherwise should be considered as a possible malignancy. The differential diagnosis of a painless, slowly growing abdominal tumor may involve a wide range of possible conditions. The benign group includes hydronephrosis, teratoma, renal cystic disease, hepato-splenomegaly, enteric duplication, ovarian cyst, and abdominoscrotal hydrocele. The possible malignant lesions may represent tumors of the gastrointestinal tract, neuroblastoma, lymphoma, hypernephroma, liposarcoma, rhabdomyosarcoma or leiomyosarcoma and, of course, a primary neoplastic growth of the testis [1]. We report here the case of a young adult who presented with a painless, slowly growing retroperitoneal swelling that proved to be a rare, benign, late complication of a scrotal operation for undescended testis.

## Case Description

This 18-year-old Caucasian male was admitted electively for evaluation of a painless abdominal mass in the left lower quadrant. Physical examination revealed a deep immobile tumor approximately 8 cm in diameter located in the left iliac fossa, and absence of the left testicle on palpation. His past medical history was unremarkable except for a left orchipexy that had been performed in another hospital 10 months earlier, following which a post-

operative local infection necessitated scrotal drainage.

Present laboratory findings, including liver and renal function tests, were within normal limits. Ultrasonography and computerized tomography showed a well-delineated cystic mass measuring 10 cm in diameter, with mixed liquid and solid contents. Intravenous pyelography revealed a marked lateral deviation of the left ureter with mild obstructive hydronephrosis compatible with a retroperitoneal space-occupying lesion. Although an abscess was suspected, exploration was deemed necessary to rule out malignancy. On explorative laparotomy, the mass was approached by mobilization of the sigmoid colon mesentery through the "white line," and 400 ml of brownish fluid containing necrotic debris was drained. The histopathological examination of the necrotic tissue revealed remnants of the testicle without malignant changes. The postoperative course was uneventful.

## Comment

John Hunter, in 1786, was the first to notice that fetal testes are located in the retroperitoneum until the third trimester of pregnancy. The mechanism of descent into the scrotum is attributed to a combination of factors, including intraabdominal pressure and contraction of the cremaster muscle and the gubernaculum [2]. The incidence of true arrest of the testicular descent is 2.7% at full term and 21% in premature infants; of these, 10%

will remain in an intraabdominal position [3]. Retraction of the testicle into the inguinal canal or retroperitoneum following an orchipexy may be anticipated in 6%, correlating with the height of the initial position [2].

A palpable abdominal mass should always, primarily, raise the suspicion of a malignancy; but in the presence of an empty scrotum and/or hydrocele, a benign condition related to a pathology of testicular descent may also be considered. One of these rare entities is the so-called abdominoscrotal hydrocele, of which less than 100 cases have been reported to date [1,4].

Our case represents a late sequel of a septic complication following an orchipexy that simulated a retroperitoneal tumor. The postoperative intra-scrotal sepsis probably caused retraction of the infected testicle into the retroperitoneal space, followed by necrosis and development of a slowly growing asymptomatic retroperitoneal "cold" abscess. To the best of our knowledge no similar case has been published. One report describes an inflammatory complication of an intraabdominal testicle — acute epididymitis in the right iliac fossa mimicking appendicitis [5].

We believe that when confronted by a retroperitoneal mass, the physician must first and foremost rule out malignancy. Nevertheless, when an empty scrotum is present on the same side, a benign pathology related to an intraabdominal testicle should also be considered.

## References

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