

**ABDOMINO-SCROTAL HYDROCELE REVEALING A RENAL MALFORMATION,  
ABOUT A CASE****Mehdi Safieddine, Anas Tmiri\*, Amine Moataz, Mohamed Dakir, Adil Debbagh and Rachid Aboutaieb**

Urology Department, Ibn Rochd University Hospital Center, Casablanca, Morocco.

**\*Corresponding Author: Anas Tmiri**

Urology Department, Ibn Rochd University Hospital Center, Casablanca, Morocco.

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**SUMMARY**

Hydrocele is defined by fluid effusion in the vaginal cavity constituting a frequent pathology, its cause differs but generally it is idiopathic. The diagnosis is clinical, with notion of large chronic bursa, coupled with a scrotal ultrasound for confirmation. The treatment is mainly surgical except against surgical indication. It can be responsible for several complications. This observation represents one of these complications by a left abdomino-scrotal hydrocele with repercussions on the urinary tract.

**INTRODUCTION**

Hydrocele is a frequent reason for consultation in urology, it is manifested in the majority of cases by a large chronic purse, it can be unilateral or bilateral, the persistence of the peritoneal-vaginal canal in young subjects is the first cause on the other hand. it may be secondary to a defect in the regulation of the secretion and resorption of vaginal fluid in the elderly subject.<sup>[1]</sup> The diagnosis is clinical but an ultrasound can be performed to confirm the diagnosis and better explore the underlying scrotal contents, The treatment of hydrocele remains mainly surgical, several complications can be secondary to this pathology and to the treatment.<sup>[2]</sup>

We report a case of a left abdomino-scrotal hydrocele in a young subject revealing a malformation of the upper urinary tract.

**OBSERVATION**

A 16-year-old patient, with no particular pathological history, who presented for consultation with a large chronic bursa evolving for a year associated with a swelling of the hypogastric region, especially at the level of the left iliac fossa.

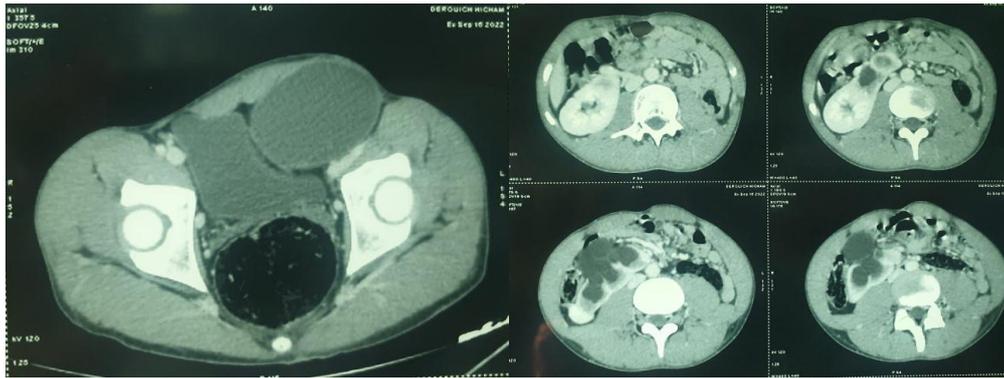
The clinical examination found a conscious patient in good general condition, afebrile with the presence of a large, slightly tender bursa, positive transillumination, associated with a more marked hypogastric arch on the left (Figure 1).



**Figure 1 :Aspect in favor of a large purse extended to the hypogastric region.**

The patient benefited from an abdomino-pelvic ultrasound showing a large left abdomino-pelvi-scrotal fluid formation rising up to the umbilicus with a volume estimated at 1700ml with the testicle normally in place; with evidence on the abdominal level of moderate ureterohydronephrosis on horseshoe kidneys.

CT uroscan in addition to ultrasound showed a left abdomino-scrotal hydrocele responsible for moderate ureterohydronephrosis on horseshoe kidneys (figure 2).



**Figure 2:CT uroscan objectifying an abdomino-scrotal hydrocele with horseshoe-shaped kidneys seat of moderate ureterohydronephrosis.**

The patient initially benefited from a surgical cure for hydrocele via the scrotal route and then a closure of the peritoneal-vaginal canal via the laparoscopic route, with a good evolution and simple postoperative follow-up.

## DISCUSSION

Hydrocele is a common condition secondary to fluid effusion in the vaginal cavity, which remains a virtual cavity. The etiopathogenesis is poorly understood; it may occur due to trauma, infection, incomplete obliteration of the peritoneovaginal canal or may be idiopathic in nature. Surgical intervention is indicated in front of the functional gene.<sup>[3]</sup>

The natural evolution of this condition can be responsible for several complications including the non-traumatic rupture described by Masoumi-Ravandi K et al.<sup>[4]</sup> in a 64-year-old man who presented to the emergency room for swelling in the penis with a reduction in the size of the hydrocele without any notion of trauma. The treatment was medical with a good clinical evolution and reduction of penile edema, the patient is put under medical treatment based on antibiotics and analgesics, however in case of recurrence a surgical intervention can be carried out.

Fall et al<sup>[5]</sup> described a case of right abdomino-scrotal hydrocele, similar to our case, in a 12-year-old child complicated by moderate ureterohydronephrosis of the right kidney, the treatment was surgical, while the postoperative follow-up was simple with a good clinical evolution.

In rare cases, the hydrocele can be responsible for a large acute painful bursa this is found in the case of a hydrocele under tension which can cause obstruction of arterial inflow and venous outflow to and from the testicle; testicular ischemia may result, resulting in necrosis of the testicular parenchyma; It is important to recognize tension hydroceles as an extremely rare but possible cause of acute scrotum, which needs to be diagnosed and treated urgently. Ultrasound is the modality of choice for the evaluation of tension hydrocele, which presents as a collection of anechoic

fluid. In the majority of cases, Doppler ultrasound will reveal decreased testicular arterial flow.<sup>[6,7]</sup>

Complications were often observed postoperatively following the surgical cure of the hydrocele dominated by the scrotal hematoma. A study was carried out by Tsai et al<sup>[8]</sup> by studying the results of three surgical techniques: Jaboulay, Lord and simple vaginal resection. 276 patients were operated by one of the three techniques whether for unilateral or bilateral hydrocele, the percentage of patients operated by Jaboulay technique, Lord and simple vaginal resection was respectively 26%, 28% and 46%. The overall rate of recurrence after hydrocele surgery treatment was 6% and did not differ between the different surgical techniques analyzed. The overall complication rate and postoperative hematoma rate were lowest in patients treated with Lord's technique. These data reaffirm the existing literature on hydrocele surgical techniques and suggest that Lord's technique is an effective choice with fewer complications in the treatment of hydroceles.<sup>[8]</sup>

## CONCLUSION

Hydrocele is a pathology that appears simple but can be serious, the abdominal-scrotal clinical entity is a serious and rare form, its diagnosis is usually easily made by ultrasound. The treatment is surgical, which makes it possible to avoid any complication, especially compressive, the evolution is generally good and the postoperative follow-up is simple.

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