Case Report

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# HYDRONEPHROSIS SECONDARY TO A SEMINOMA IN ABDOMINAL CRYPTORCHID TESTIS

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**ABSTRACT**

The incidence of testicular cancer in cryptorchidism is 30 to 50 times higher than in general population. We present a case of hydronephrosis caused by a seminoma in an abdominal cryptorchid testis. A 22 years old male presented abdominal and right flank pain, and haematuria. Despite the fact that he could not feel right testis since he was 7 years old, he had never looked for treatment. A huge mass was palpable in hypogastric, and IVP and CT Scan demonstrated functional exclusion of the right kidney, and a solid tumor localized at the right iliac fossa, near the bladder wall. The patient was submitted to laparotomy with resection of the mass, and the histopathologic study showed classic seminoma. Abdominal testes have higher incidence of malignancy than those in the inguinal position. The orchiopexy is recommended for abdominal testis after 2 years old to facilitate the investigation and identification of testicular cancer.

**Key words**: testis; cryptorchidism; seminoma; hydronephrosis
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## INTRODUCTION

Cryptorchidism is one of most frequent congenital pathologies, affecting from 2 to 5% of boys. When testis is not found at the usual position, it suffers from higher temperatures at the inguinal canal and within the abdomen. This difference in temperature is harmful for germinatif epithelium, and would also be responsible for malignant degeneration of the organ (1).

Non-palpable testis responds for approximately 20% of cryptorchid testes. Only 20% of non-palpable testes are absent, and the remainder are at abdominal ou high inguinal position (1). Incidence of testicular cancer in cryptorchid patients is estimated to be 30 to 50 times higher than in general population (1). Intra-abdominal testes present a higher rate of neoplasia than testes located at inguinal region.

This case report aims to present a patient with abdominal cryptorchidism, that developped a tumor and progressed with hydronephrosis resulting from ureteral compression by the tumoral mass.

## CASE REPORT

MSR, male, 22 years old, presented pain in low abdominal region and right flank, initiating 7 days before, colic-like, and severe. He also presented disuria, haematuria, nausea and vomiting, besides weakness of urinary stream. He reported absence of fever, bowel habit alterations or other complaints. In history, the only relevant fact was the presence of right cryptorchidism, not treated during childhood.

At physical exam, in spite of the difficulties due to obesity, he presented a hard and painful mass in hypogastric region, with approximately 8 cm; rectal examination was normal, left testis was topic, without alterations, and right testis was not found at scrotum. Dosing of serum tumor markers was performed, showing increases in beta-HCG (750ng/mL) and in

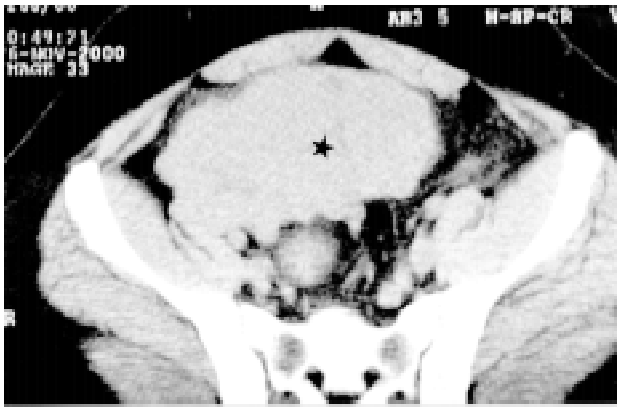

***Figure 1*** *- Computed tomography demonstrating an irregular solid pelvic mass (asterisk).*

alpha-fetoprotein (30ng/mL). Intravenous pielogram demonstrated normal left kidney, and functional exclusion of right kidney. Computed tomography showed huge solid tumor, located in pelvis, with irregular contours (Figure-1), and significant right hydronephrosis.

The patient underwent an exploratory laparotomy with tumor exeresis. Histopathological result was classic seminoma. Two weeks after mass excision, the patient underwent right nephrectomy, after renal scan showing loss of right kidney function. The patient was submitted to chemotherapy 30 days after the nephrectomy. We have a 6 months follow-up of this patient, and he is in good conditions, with no signs of tumoral recurrence.

## DISCUSSION

Cryptorchid testes ought to be treated until the second year of age; after this time, injuries to the germinative epithelium may be irreversible. Neoplastic alterations in cryptorchid testes occur independently of the moment this pathology was corrected (1).

When testis is located in abdomen and the diagnosis firmed during childhood, orchiopexy is the technique of choice, and it may be done through autotransplantation, or Fowler-Stephens surgery, in 1 or 2 steps; however the procedure of choice is laparoscopic surgery (2). If the diagnosis is made in a more advanced age, but the testis is viable, there are two options: preventive excision of the organ, or its preservation at scrotum, what would permit a better follow-up of its alterations (3). Some authors advocate testis preservation, when it is viable.

Abdominal cryptorchid testis present a higher incidence of neoplasia compared to inguinal (1). Fixation of an abdominal cryptorchid testis, of normal size, at scrotum after 2 years of age has as main purpose to facilitate its monitoring (1).

Tumors in abdominal testis are rare and lead to compression of urinary tract only in case of huge masses (1). Preserving renal unit in this case would happen if the diagnosis was done earlier. This case report reinforces the importance of early diagnosis and treatment in pacients with non-palpable testis.

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