



## Intraabdominal mass in adult men with unilateral UDT revealed as seminoma: A case report

Muhamat Gozali Arief Sembiring<sup>a</sup>, Bungaran Sihombing<sup>b,\*</sup>

<sup>a</sup> Resident Urology of University Of Indonesia, Adam Malik Hospital, Bunga Lau Street No 18, Medan, 20135, North Sumatera, Indonesia

<sup>b</sup> Urology Division, Department of Surgery, Adam Malik General Hospital, University of North Sumatera, Mongonsidi Street No 17, Medan, 20351, North Sumatera, Indonesia

### ARTICLE INFO

#### Keywords:

UDT  
Intraabdominal mass  
Seminoma  
Case report

### ABSTRACT

Undescended testis is most common congenital malformation in boys. Most common location is inguinal canal but rarely it is found in intraabdominal. 10% of them will grow become mass if left untreated. This case report describes cases of men of 40s with unilateral UDT and not noticeable until they felt heavy and feel palpable mass in abdomen revealed as seminoma. He is sterile and not be able to reproduce. Chemotherapy was done and the response was remarkable. This case report reiterates the need for a scrotal examination in men presenting with an abdominal mass, so as to rule out an intra-abdominal seminoma.

### 1. Introduction

During the testis development, undescended testis can be seen anywhere from the lower pole of the kidney to the external ring<sup>(1)</sup>. About 66% of undescended testicles are found distal to the external inguinal ring, 16% in the inguinal canal, and 10% intra-abdominally. Furthermore, in 3% of undescended testis cases, the testis cannot be found surgically.

For a long time, several doctors have been concerned about the involvement of cryptorchidism in testicular carcinogenesis. An undescended testicle has a 20 to 48 times higher chance of forming a malignant neoplasm than a testicle that has descended normally. Seminomas in the undescended testes can manifest as a tumour in the abdominal wall.<sup>2,3</sup> A unilateral testis tumor in men with ipsilateral undescended testis is presented and relevant literature is reviewed. The cryptorchid testis predisposes to testicular cancer, ischemia, and infertility later in adulthood. The most common malignant transformation of the undescended testis is testicular seminoma.<sup>4</sup>

In our case report, we present a case of an intraabdominal mass with unilateral UDT revealed as testicular seminoma.

### 2. Case presentation

#### 2.1. Case 1

A 31-year-old man came to our hospital with a two-year history of lower abdominal mass and pain. He admitted that he experienced weight loss as well. This patient has been married for five years but has not had a child yet. The mass was slightly tender, and it was situated just above the pubic symphysis. Based on the scrotal examinations, we found a normal right testis. The left testicle, on the other hand, was not palpable in the scrotum or the inguinal area. This patient presented with penoscrotal hypospadias (Fig. 1).

Apart from serum LDH slight increases (595 mmol/dl), serum alpha-fetoprotein and other laboratory parameters were all in a normal range. A 16x9x10cm solid mass with central necrosis stretching from the pelvis to the bifurcation of the common iliac artery was discovered on an abdominal computed tomography (CT) scan (Fig. 2). No paraaortic lymph enlargement. There was left moderate hydronephrosis. A laparotomy was performed via a lower midline incision, and a tumor biopsy was performed. The initial plan was to resect the mass in toto. However, during the operation, the tumor adhered to the surrounding structure. Thus, a biopsy was performed instead of resection. Based on the histopathology investigation, the tumor was a pure seminoma (Fig. 3). Immunohistochemistry evaluation was conducted to ensure the diagnosis. We found that the specimen was positive for Ki-67, CD-117, and

\* Corresponding author.

E-mail addresses: [gozalibiring@gmail.com](mailto:gozalibiring@gmail.com) (M.G.A. Sembiring), [bungaransihombing@yahoo.com](mailto:bungaransihombing@yahoo.com) (B. Sihombing).

<https://doi.org/10.1016/j.eucr.2021.101806>

Received 21 June 2021; Received in revised form 7 August 2021; Accepted 9 August 2021

Available online 9 August 2021

2214-4420/© 2021 Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).



Fig. 1. Right Lump on the lower abdomen; left undescended testis and penoscrotal hypospadias.

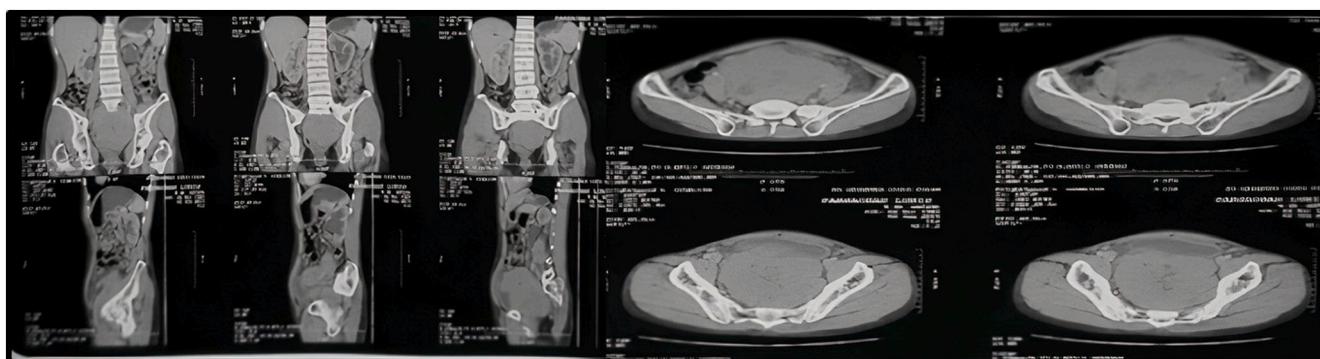


Fig. 2. Axial, coronal and sagittal section of Non contrast Abdominal and Pelvis CT scan revealed a large mass arising from pelvis rather uniform density and a regular well-defined outline. There are some areas of central necrosis.

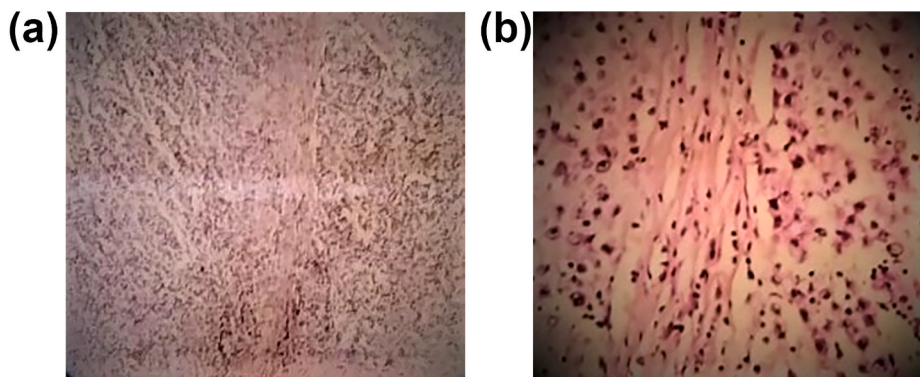


Fig. 3. Histopathological Examination on the Tumor. This picture suggested of seminoma.

CD-68. Other markers such as CD-3, CD 20, Calretinin, CD-1A, CD-138, Creatine Kinase, and CD 30 showed negative results. Based on those results, we confirmed that the tumor was indeed a seminoma. After recovery, the patient received three cycles of chemotherapy with regimen bleomycin, etoposide, and cisplatin. After three cycles of chemotherapy, there was no palpable abdominal lump, and hydronephrosis of the left kidney was diminished, and the abdominal CT evaluation showed no residual mass on the pelvic, and a six-month CT follow-up was carried out to the patient.

### 3. Discussion

Undescended testis is a typical congenital defect that affects approximately 1–4.5% of male babies, with a higher prevalence in preterm males (30–45%). However, testes may descend into the scrotum

in 75% of full-term neonates, and the rate drops to 0.8–1.2% at one year.<sup>2,3</sup> Malignant alteration in the undescended testis is a typical condition in addition to infertility, inguinal hernia, and torsion. In patients with undescended testes, the cancer incidence is 35–48 times higher than in the general population.<sup>3</sup>

Cryptorchidism is linked to around 10% of all testicular cancers, with the incidence being higher in the abdominal testicle. Testicular cancer is more likely to occur in people who are infertile or sub-fertile.<sup>4,5</sup> There is also evidence of a connection between testicular cancer and low birth weight, small for gestational age infants, and hypospadias. The patient in this study had scrotal hypospadias and was infertile.

Retroperitoneal seminoma is a very uncommon testicular cancer. In the literature, cases of seminomas in the retroperitoneum, mediastinum, and thymus have been recorded.<sup>5</sup> Neoplastic development of extra-testicular seminoma is thought to occur during the migration of

primordial germ cells from the yolk sac endoderm to the scrotum.<sup>3</sup> In our cases the patient presented with retroperitoneal seminoma.

Seminoma is one of the curable cancers, with cure rates nearing 100% and very high sensitivity with chemotherapy.<sup>5</sup> The patient received 3 and 4 cycles with bleomycin, etoposide, and cisplatin regimen with good response.

#### 4. Conclusion

In middle-aged males, testicular seminoma is a common malignancy, and cryptorchidism makes it much more likely. We emphasize the importance of a scrotal test in men who have an abdominal mass to rule out an intra-abdominal seminoma. Seminoma is one of the most curable tumors, with cure rates approaching 100% and high sensitivity to chemotherapy.

#### Declaration of competing interest

There is no conflict of interest in this paper work.

#### Acknowledgements

I would like to express my very great appreciation to dr. Bungaran

Sihombing, PhD for his valuable and constructive suggestions during the planning and development of this research work. His willingness to give his time so generously has been very much appreciated.

#### Abbreviation

UDT *Undescended Testis*

#### References

1. Yilmaz A, Bayraktar B, Sagioglu J, Gucluer B. Giant seminoma in an undescended testis presenting as an abdominal wall mass. *J. Surg. Case Rep.* 2011;(12):9.
2. Boujelbene N, Cosinschi A, Boujelbene N, et al. Pure seminoma: a review and update. *Radiat Oncol.* 2011;6:90.
3. Radmayr C, Dogan HS, Hoebeke P, et al. Management of undescended testes: European association of urology/European society for paediatric urology guidelines. *J Pediatr Urol.* 2016 Dec;12(6):335–343.
4. Lim YJ, Jeong MJ, Bae BN, Kim SH, Kim JY. Seminoma in undescended testis. *Abdom Imag.* 2008;33(2):241–243.
5. Prabhakar N, Sethi B, Nagger S, Saxena A. Synchronous seminoma in abdominopelvic and inguinal testes: a rare presentation with unusual morphology. *Case Reports in Pathology.* 2017. 2017:6179861.