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# ABDOMINAL LUMP IN A CASE OF BILATERAL UNDESCENDED TESTIS- CASE REPORT

**Surgery**

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## ABSTRACT

Cryptorchidism is a common congenital anomaly affecting newborn males. It is commonly located in the inguinal canal but can also be found intra-abdomen. Early detection before one year of age is recommended and must be operated for orchidopexy. Surgery does not reduce the incidence of the development of testicular cancer but helps to detect the cancer early if it happens. Cancer risk for adults with cryptorchidism in childhood is 5–10 times greater than usual.

## KEYWORDS

Bilateral Undescended testis; Seminoma; Abdominal lump; Germ cell.

## INTRODUCTION:

Undescended testis can be found anywhere from the lower pole of the kidney to the external inguinal ring.[1] 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.

An undescended testicle has a 20 to 48 times higher chance of developing a malignant neoplasm than a testicle that has descended normally. Seminomas in the undescended testes can manifest as tumors in the abdominal wall.[2][3]A case of testicular tumor in an adult male with undescended testis is presented, along with relevant literature. 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.[4]

We are presenting a case report of a patient with an intraabdominal mass with bilateral undescended testes revealed as testicular Seminoma.

### Case Summary

**Case history:** A 26-year-old male came to the surgery in the outpatient department with complaints of palpable abdominal lump, abdominal pain, and vomiting. The lump was noticed one month ago and gradually progressed in size. On examination, the swelling was 10cm x 15cm in size, extending up to the pelvis. The upper border was ill-defined, and the lower border was not palpable, with a smooth surface and hard consistency. The lump was immobile and not moving with respiration. There were no other lumps. The skin over the abdomen was tense, with no redness, dilated veins, scars, or pigmentation. Bilateral scrotal sacs were empty. No palpable inguinal and supraclavicular lymphadenopathy.

Ultrasonography of the abdomen revealed an approximately 13cm long x 8.3cm wide mass with heterogeneous echotexture with evidence of internal vascularity and multiple anechoic areas noted in the suprapubic region, displacing bowel loops in the periphery. No paraaortic lymphadenopathy was seen. Visualized bowel loops appear normal and no free fluid was noted in the abdomen or pelvis.

CECT of the abdomen with pelvis revealed empty scrotal sacs on either side. Approx 20 x 28 mm sized testis-like structure seen proximal to the superficial inguinal ring on the right side suggests p/o right undescended testis. Evidence of 94 x 123x 120 mm sized well-defined lobulated heterogeneous density soft tissue mass lesion seen in the pelvis posterior and superior to urinary bladder suggest the possibility of testicular mass lesion arising from the left undescended testis. No evidence of focal liver lesion, lymphadenopathy, or ascites was seen.

These clinical, imaging, and laboratory findings diagnosed a Seminoma in the left undescended testis. Open exploration was done with midline laparotomy and excision of the retroperitoneal mass was done. Left testicular mass was mobilized all around vessels were ligated and the specimen was taken out [Fig. 2a,b &c ]. The postoperative course was uneventful. Patient was discharged and took chemotherapy after reviewing with histopathology report.

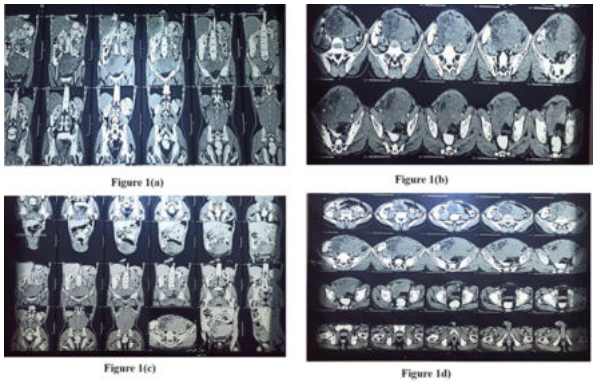


**Fig.1(a,b,c and d)** Axial, coronal and sagittal sections of the Abdominal and Pelvis CT scan revealed a large mass arising from the pelvis with rather uniform density and a regular well-defined outline. There are some areas of central necrosis.

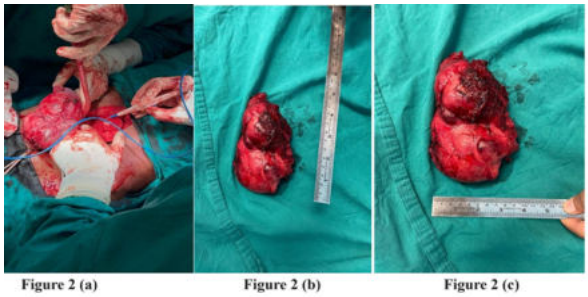


**Fig.2 (a,b,c)** Intra-operative specimen of left Testicular growth and multiple enlarged superficial vessels and haemorrhage.

A study of serum markers showed: (Table 1)

**Table 1: Serum markers in case of seminoma**

| Serum markers | Results | Units | Bio. ref. interval |
|---|---|---|---|
| **HCG, total** | 103.7 | mIU/ml | <2.0 |
| **AFP** | 8.42 | ng/ml | 0.0-7.0 |
| **LDH** | 1191.0 | U/L | 106-211 |

**Histopathological examination revealed;**

**a) Grossly:**

Specimen of left testicular growth measuring 13.5 x 10 x 5 cm. On the

cut section, greyish white.

**b) Microscopically:**
The sections show a complete replacement of testicular architecture with tumour mass showing malignant tumor cells lying in sheets, forming glands, nests, cords, and in a microcystic pattern.

According to CAP protocol for examination of specimens from patients with germ cell tumors of the testis.

a) **Specimen laterality:** left
b) **Tumor focality:** unifocal
c) **Histologic type:** Mixed germ cell tumor

Seminoma- 60%
Embryonal carcinoma- 40%

**d) Tumor extension:**
Tunica albuginea and tunica vaginalis are free from invasion by tumor cells. Rete testis and epididymis are free from invasion by tumor cells. The spermatic cord was uninvolved by the tumor. No lymphovascular invasion was identified. All these features suggested Pathological stage classification (AJCC 8th edition): pT1bNxMx.

**e) Immunohistochemistry examination:**
CD117 positive and pan keratin (AE1 & AE3) negative.

## DISCUSSION:
Intra-abdominal testicular tumors are usually noticed once they start producing symptoms or are palpable, resulting in late presentation compared to intra-scrotal testicular tumors, which are diagnosed early.[5] Undescended testis (Cryptorchidism) 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.[2][3]

Cryptorchidism needs to be managed at an early age, preferably at six months, for prevention/early detection of this kind of tumour. Having an undescended testis is a risk factor for developing testicular cancer later in life. Orchidopexy at an early age reduces the chances of having a testicular malignancy.[6] In patients with undescended testes, the cancer incidence is 35–48 times higher than in the general population.[2] Cryptorchidism is linked to around 10% of all testicular cancers, with the incidence being higher in the abdominal testicle. [4][7] The most common testicular cancer is a seminoma. However, if a testicular tumour develops, it is undoubtedly easier to identify in a testis within the scrotum, but in cases of UDT tumors may present at an advanced stage and management may be challenging at times.

This case report describes a case of a man in his twenties with bilateral UDT and a huge palpable abdominal mass revealed as Seminoma. In our case, the patient presented with retroperitoneal Seminoma. Seminoma is one of the curable cancers, with cure rates nearing 100% and very high sensitivity with chemotherapy.[5] The outcome following surgery after chemotherapy for advanced testicular cancer depends on (a) the pathology of retroperitoneal resection, (b) completeness of resection, and (c) subsequent adjuvant treatment.[6]

As far as the management is concerned in this case(Stage 1- Testis involvement with no nodal involvement), chemotherapy is to be started with an assessment of serum tumor markers for monitoring the treatment.

## CONCLUSION
Undescended testes is associated with a high risk of malignancy, it should be detected early and operated. Seminoma is the most common testicular tumor with a good prognosis.

**Abbreviations**
**AFP:** Alpha-fetoprotein;
**βhCG:** beta unit of human chorionic gonadotropin;
**CT:** Computed tomography;
**LDH:** Lactate dehydrogenase;
**UDT:** undescended testis;
**p/o**: presence of

**Declaration of competing interest**
The authors declare no conflicts of interest concerning research, authorship, and/or publication.

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