

CASE REPORT

## Ruptured Intra-Abdominal Seminoma in a Young Man: A Case Report

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### ABSTRACT

Undescended testis makes a big issue in life of any person of male gender who is born with it. There is possibility for undescended testes to move down from abdomen to scrotal pouch, typically in early time of life but failure for it to happen can also occur. A delaying diagnosis can give rise to complications. Keeping in view of this, complications like becoming infertile for life, or conversion into cancerous growth such as seminoma, may occur. Prompt surgically correction of undescended testes early in life should be considered. At times, it can skip attention and presented afterwards with clinical features of like that of any other disease of abdomen or pelvis. Here, presenting you case of a young male, who remained unaware of his undescended right testicle and presented with a right iliac fossa pain and mass, which upon exploration, excised and sent for histopathology, to be found as seminoma, negative for metastasis.

**Keywords:** Cryptorchidism, Undescended Testes, Seminoma, Testicular Malignancy.

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### INTRODUCTION

Cryptorchidism is said to be, when one or both testes are missing from the scrotum. This condition mostly affects one testicle, but in ten percent of time, both testes can be involved. Many factors contribute to this problem, including: born prematurely, low birth weight, twinning, being born as small for gestational age, cigarette smoking and alcohol consumption by mother during pregnancy.<sup>1</sup> Cryptorchidism might be diagnosed during a physical examination when baby is born or at any checkup after birth, by "palpation" on examination by the doctor.<sup>2</sup> If the normal descend of testes do not occur, many complications can occur like deficiency in sperm count and poor quality of sperm can occur due temperature rise in undescended testes. There is a lower risk of developing carcinoma as a complication, approximately one percent but still the risk persists.<sup>3</sup> Seminoma is the commonest malignancy in such testes, while malignancy being testicular germ cell tumors.<sup>3</sup> Along its pathway of formation and descent, the testes can be found anywhere along, but to be present in abdomen is most prominent. Out of malignancy forming in all undescended testes, there is a rate of occurrence as high as five times in intra-abdominal testes.<sup>4</sup> Orchiectomy, staging of the disease using radiology and tumor marker testing, and subsequent chemotherapy and/or radiotherapy leads the treatment options in such cases.

### CASE REPORT

A young male, 23 years old, unmarried, no known comorbid, resident of low resource area of Karachi, worker by profession, came with complain of pain in right iliac fossa (RIF) and vomiting for three to four days. As told by the patient, he was in his usual state of health, three to four days earlier, when he developed pricking pain in RIF with severe intensity, sudden in onset, non-radiating, having no aggravating factors and relieves only on taking analgesics. It was associated with non-projectile, bad smelling, vomiting having gastric contents. He had two episodes of similar illnesses, at intervals of four and one month. Previous episodes were managed conservatively. On examination of abdomen, there was a tender mass in RIF, with a dull percussion note. Scrotum on right side was not developed and empty of right testicle, whereas on left side testicle was palpable with developed scrotum. Ultrasound whole abdomen revealed a well-defined hypoechoic area measuring 7.0 x 6.9cm seen in right side of abdomen. After two days of observation, his pain was not resolving so we decide to operate. Midline incision given, around 50cc hemoperitoneum present and a mass seen arising from the posterior abdominal wall not attached to gut or any surrounding structure. It was soft, richly supplied with blood vessels. Its attachment point was chased at posterior abdominal wall, which was ligated, mass removed and

sent for histopathology (Figure 1). The report later showed that the tissue was seminoma. Our patient underwent CT scanning, Alpha fetoprotein and beta human chorionic gonadotropin (HCG) testing. All the workup turned out to be negative for metastasis and it was a stage I disease.

## DISCUSSION

Intra-abdominal testes have the highest chance of transforming into malignant. There is a six times more likelihood of developing testicular cancer in men with unilateral undescended testis, especially if the patient has hit puberty before treatment.<sup>2</sup> For a male, born with having testes in scrotum and no abnormal descend, the chance to develop germ cell tumor is significantly less as compared to a male with not having normal descend of testes. Testis may be lying in inguinal canal or intra-abdominally, while their absence or atrophy may also follow. Testicular seminoma is a tumor affecting the seminiferous tubules in their germinal epithelium, it is a germinal cell tumor, which is a most common malignancy in males aged, fifteen to thirty five years.<sup>5</sup> Seminomas are likely to develop in ninety percent of tumors, occurring in undescended testes, mostly in those lying in abdomen.<sup>6</sup> Clinically, patients affected from intra-abdominal testes which are malignant, may remain asymptomatic or they may clinically be presenting in a way which mimics other acute conditions of abdomen like: incarcerated hernia or appendicitis, may also have increase urinary frequency or painful urination due to pressure effects, or may present with hemorrhage and torsion. Radiological assistance like computed tomography, magnetic resonance imaging and ultrasonography shows presence of well-defined heterogeneous mass in retroperitoneum with no ischemia or calcification: but it could simulate other pathologies like lymphadenopathy or sarcoma, giving nonspecific outcomes.<sup>7</sup> Histopathology is sent for definitive diagnosis. As it is one of the most curable cancers, if diagnosis is done early, its survival rate is above ninety five percent. Surgical removal of this tumor is most suggestive.<sup>8</sup> To proceed for surgery, after confirming of diagnosis, further investigations are required which include x-ray chest, beta human chorionic gonadotropin levels, abdominal computed tomography and alfa fetoprotein levels to find stage of the disease and plan for other management options like chemotherapy or radiotherapy.<sup>9</sup> In a study, conducted by Bhatti et al (2014), presented that mixed germ cell tumor (MGCT) was the most common tumor encountered in the

present study. This is in contrast to the worldwide distribution of germ cell tumors where seminomas more frequent.<sup>10</sup> This makes reporting of such case more necessary. After staging of the patient and ruling out malignancy, we sent our patient to oncologist.



Figure 1: (A) Intra-abdominal seminoma (B) After excision

## CONCLUSION

With undescended testes, whether it is unilateral or bilateral, complications of degeneration and malignancy can occur, giving rise to carcinoma and infertility. For the part of Cancer, it is more likely to occur in men with undescended testes as compared to men with normal testes, and definitely more with testes located in abdomen. Complicated cases can present as acute abdominal condition, simulating other diseases of abdomen. Degenerative change once start, is an irreversible process. Timely diagnosis and management is the goal.<sup>2</sup>

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