Unusual Intra Abdominal Mass

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ABSTRACT

It is common for an intra - abdominal testes to be malignant. But rarely does it present as peritonitis. We present a case of a 30 year old man who presented with features of peritonitis, where laparotomy revealed a soft tissue mass arising from the small bowel, encroaching on to the mesentry with gangrenous small bowel and perforation. The intraoperative impression was a small bowel mass, most probably a GIST. However histopathological examination revealed a mixed germ cell tumor (embryonal cell carcinoma with seminoma). Post operative re – examination showed absence of right testes.

Keywords: *Undescended testes, seminoma*

INTRODUCTION

Cryptorchidism is a common condition affecting 2-5% of children[1]. In cryptorchid testes the incidence of testicular cancer is considered to be between 3 to 48 times greater than that of the general population[2]. Testicular tumours develop in 10% of the cases of undescended testes[3,4]. Among the positions of the undescended testes, tumour is more frequent i.e. 30 %, in those that are located in the inguinal canal[4]. The existence of undescended testes in the adult population is rare, due to systematic practice of elective orchidopexy before the second year of life and orchiectomy in post adolescent patients with undescended testes. Despite of these preventive measures, there are still some isolated cases of intra-abdominal testicular tumors in adults [2].

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Case Report

A 30 year old man presented to the emergency department with pain in the periumbilical region for 4 days which was initially mild, but gradually increased in severity and aggravated on movement. On examination, the patient was ill – looking, tachycardic, and febrile. There was generalized tenderness of the abdomen with guarding and absence of peristaltic sounds. The hernial orifices were intact. The scrotum was not examined. Hematological investigations showed neutrophilic leucocytosis and the biochemical parameters were within normal limits. X-ray of the chest showed gas under diaphragm. With the provisional diagnosis of perforated hollow viscus, most probably due to a duodenal ulcer perforation, exploratory laparotomy was performed after resuscitation of the patient.

On exploration of the abdominal cavity, there were gross inter-loop adhesions with plenty of pus in the peritoneal cavity as well as interloop spaces. After suctioning the intraperitoneal collection, a soft tissue mass of around 10 x 15 cm was discovered in the lower abdomen, which was encroaching on the mesentry, along with gangrenous segment of the small bowel with perforation. The mass was excised in - toto (Figure 1) along with the gangrenous small bowel and end to end ileal anastomosis was done. The impression was a small bowel mass, probably a gastrointestinal stromal tumour (GIST). The mass was subjected to histopathological examination. To our utter surprise, the histopathological report revealed a solid grayish tissue with necrosis and hemorrhage suggestive of mixed germ cell tumor (embryonal cell carcinoma with seminoma). The postoperative period was uneventful.

On re-examination of the patient, the right side of the scrotum was empty – it was a case of undescended testes with intra – abdominal seminoma! The patient was subsequently investigated to stage the tumor, but no evidence of metastases was found. The patient was referred for further subjected for chemo – radiotherapy.

DISCUSSION

The testicular cancer represents 1-2% of all male malignant tumors and 4% of the urogenital ones. There are many etiological factors proposed in the development of testicular cancer: undescended testes or cryptorchidism, trauma, testicular atrophy, gonadal dysgenesis etc[2]. History of tumor in the contralateral testes also predisposes to testicular tumour [5,6].

Tumors in undescendent testes in children are rare, who generally present with torsion of the pedicle[7]. It has been estimated that torsion, a rare but significant complication of undescended testes, occurs in 64% of intra-abdominal testicles that are cancerous[8]. The increased size of the malignant testes can promote twisting of the testicle on its mesentery. The typical presenting symptoms of torsion of an undescended testes are abdominal and inguinal pain that may be intermittent, prolonged, or of sudden onset. Torsion can progress to infarction and rupture of the testes, which can lead to hemoperitoneum and generalized peritonitis with a potentially lethal outcome[9].

Cryptorchidism is a frequent condition present in 2-5% of children. 20 % of the cryptorchid testes are non – palpable, out of which around 80 % are due to intra-abdominal or inguinal location[2]. The high temperatures in the inguinal canal and abdomen are proposed to be responsible for the malignant degeneration of the organ[1]. For these reasons, testes should be located in patients with non-palpable testes, either by radiological investigations or a laparoscopy which can be diagnostic as well as therapeutic[2].

Abdominal testes present a higher rate of malignancy than the ones located elsewhere. The abdominal testes develop cancer in 30% of cases[1,5]. In cryptorchidic testes the incidence of testicular cancer is considered between 3 to 48 times greater than in the general population[2]. Early diagnosis of these tumors is usually difficult as the testes are difficult to palpate and the symptoms vague. Due to the different types of presentation, they are frequently misdiagnosed. Testicular tumors can be misdiagnosed as a renal tumor[11], appendicitis[12], calcified abdominal mass[13,14]. In our case also, the pre-operative diagnosis was a hollow viscus perforation and intra-operatively the testicular mass was misdiagnosed as a GIST. Palpation of the scrotum was missed in the preoperative assessment. This case emphasizes the importance of careful palpation of the testis as part of the routine physical examination.

In children, histopathologically most of the testicular tumours correspond to teratoma. However in adults it is frequent to find germinal tumors and of these the most frequent is seminoma[15]. The histopathology of the undescended testicular tumor in the adult depends on the location. Seminoma is present in 93% when it is intra-abdominal, 63% in inguinal and 28% in normotopic testes[16]. The prognosis depends on initial stage and

tumor histology[2]. With early recognition of the condition, proper diagnostic evaluation and timely management, the prognosis is generally good.

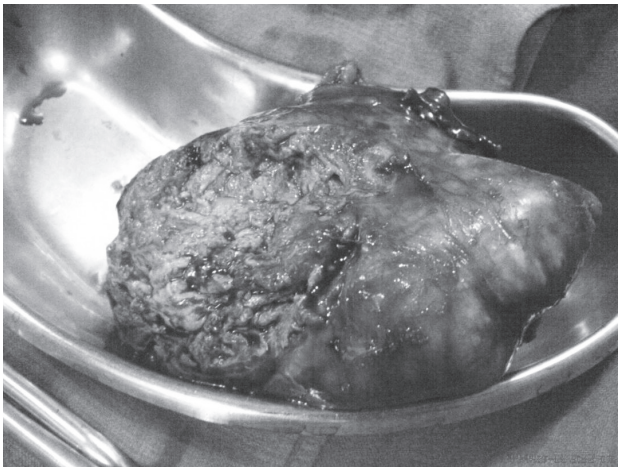

Figure 1. Mass after excision

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