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Retroperitoneal mass presenting as recurrent inguinal hernia: A case report



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ABSTRACT

INTRODUCTION: Retroperitoneal masses presenting as an inguinal hernia are rare conditions.**PRESENTATION OF CASE:** A 53 year old male admitted with the symptoms of weight loss, abdominal discomfort and left sided recurrent inguinal hernia. Physical examination demonstrated an abdominal mass in the left flank and an irreducible, painless scrotal mass. He had a history of left sided inguinal hernia surgery six years ago. Computed tomography revealed a large enhancing left sided retroperitoneal mass invading the colon, pancreas and kidney and it was going down towards the left scrotum. Unblock tumor resection including the neighboring organs (left kidney, left colon, distal pancreas with spleen) was performed. Scrotal extension of the tumor was also excised and the inguinal canal was repaired primarily. Histopathology of the mass was myxoid-liposarcoma. The patient has disease free, without hernia recurrence but poor in renal function after twenty months follow-up.**DISCUSSION:** Large retroperitoneal tumors may grow towards the inguinal region and they can mimic an inguinal hernia. An irreducible, painless and hard scrotal mass should be considered from this perspective.© 2016 The Authors. Published by Elsevier Ltd. on behalf of IJS Publishing Group Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

Inguinal hernia is a common disease especially in male adults and hernia repair is one of the most common surgical procedures performed by the general surgeons. The many other diseases affecting the groin can mimic the inguinal hernias and sarcomas are one of them. Retroperitoneal masses extending along the inguinal channel can rarely present as an inguinal hernia. We aimed to report a patient with a retroperitoneal mass which presented like a recurrent left inguinal hernia.

2. Presentation of case

A 53 year old male patient admitted to the surgery clinic with weight loss, persistent abdominal discomfort, a palpable abdominal and a left scrotal mass. He had left hernia operation, for an irreducible and painless lump without an intestinal obstruction six years ago and he had no other co-morbidity. Left inguinal mass emerged again two years after the prior surgery, but he did not admit to the hospital because it was asymptomatic. The patient was hospitalized for the diagnosis of an abdominal and a scrotal mass. Results of laboratory examinations were within the normal limits.

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Plain abdominal X-ray demonstrated an opacity in the left quadrant and colonic gas images that shifted to the right upper quadrant. Abdominal computed tomography (CT) revealed a large enhancing left retroperitoneal mass which involves the left kidney, left colon and the left scrotum. The mass was 32 × 15 × 37 cm with semisolid property (Figs. 1 and 2). Preoperative diagnostic biopsy was not performed and exploratory laparotomy was planned. On exploration a giant mass with 35 × 35 cm in size that originated from the left retroperitoneal space was observed. Spleen, left kidney, distal pancreas, descending and sigmoid colon, proximal rectum and left inguinal canal were included within the lipomatous tumor. The rest of the intra-abdominal organs were pushed to the right side of the abdomen (Fig. 3).

Complete tumor and adjacent abdominal organ resections including distal pancreas, spleen, left colon, sigmoid colon, left kidney were performed. Rectal stump was closed and a transverse end colostomy was created on the right upper quadrant. An abdominal drain was placed. The operating time was 350 min with minimal blood loss and no intra-operative complication was seen. The postoperative course was uneventful and the patient was discharged on the 6th postoperative day. Histopathologic examination revealed dedifferentiated, pleomorphic myxoid-liposarcoma which was 48 × 46 × 18 cm in diameter. Although surgical margins were detected tumor free, it was accepted as positive margin due to the huge size of the tumor and incomplete capsule in some areas of the specimen. Adjuvant chemotherapy with

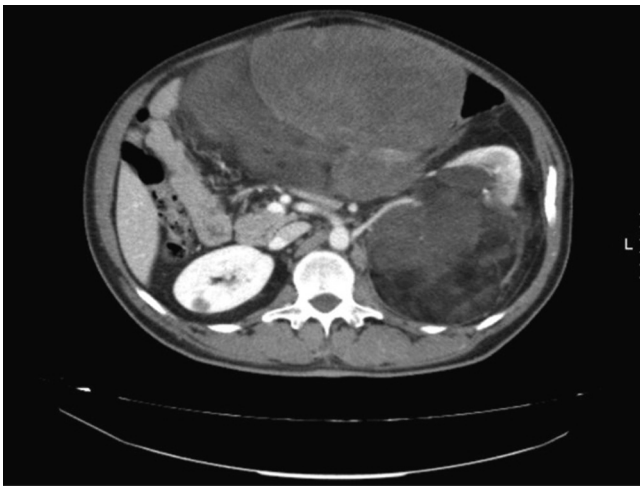


Fig. 1. Computed tomography revealed an intraabdominal mass.



Fig. 2. Inguinal component of the mass in CT.

adriamycin and iphosphamide were administered. Contrast abdominal CT could not be performed at the follow up period due to the high level of creatinin and poor kidney function. Five months later, during the surgery of colostomy closure, a recurrent mass invading the corpus of the stomach, the pancreas corpus, the distal part of the duodenum and the proximal jejunum was detected. En block tumor re-resection was performed with accompanying subtotal gastrectomy, Roux-en-Y gastrojejunostomy, subtotal pancreatectomy, partial duodenectomy and proximal jejunum. Additionally, colostomy closure was done with a 31 mm circular stapler (Covidien, Mansfield, MA, USA) and trans-anastomotic rectal tube was placed to secure the anastomosis. The operating time was 360 min with minimal blood loss and no intraoperative complication was seen. The postoperative course was uneventful. Rectal tube was removed and the patient was discharged on the 4th and 9th postoperative day, respectively. Histopathologic examination of the mass showed a pancreatic pseudocyst with tumor free specimen. The patient has still poor renal function without dialysis program and follow-up continues in surgery and nephrology clinics for twenty months without any recurrence.

3. Discussion

Other than the lesions arising from the spermatic cord structures, many diseases in a wide range may act like an inguinal hernia; such as intraperitoneal hemorrhage, metastatic deposit of

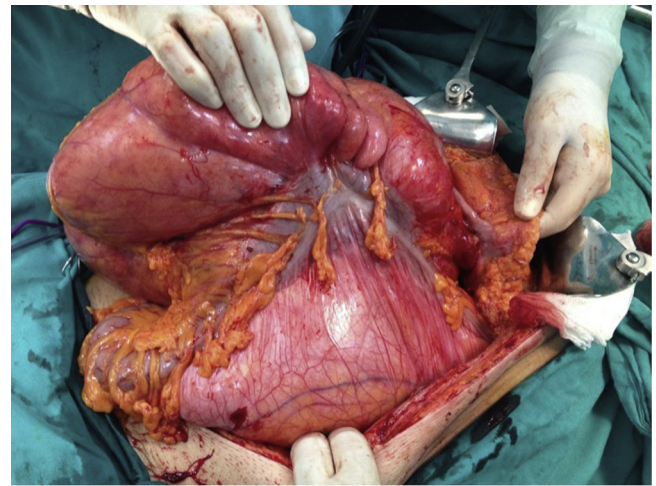


Fig. 3. Intraoperative view of liposarcoma.

abdominal tuberculosis, appendicitis, endometriosis and cyst of the nuck duct [1–3]. Retroperitoneal sarcoma presenting with inguinal hernia is extremely rare and painless, irreducible scrotal mass is the most common symptom. Retroperitoneal tumors often reach a large size because of the lack of an anatomical barrier limiting their growth. They may grow towards the inguinal region because of the association between retroperitoneum and the inguinal region through the gonadal vein's path. The internal inguinal ring and the spermatic cord structures act as a potential doorway [4].

Medical history and physical examination are important for the differential diagnosis. Especially the presence of a painless and slowly growing mass in the inguinal region indicates other pathologies than the hernia. Abdominal ultrasonography and CT are helpful in making the diagnosis. The diagnosis of our case was obtained by CT.

The main principle of the treatment of sarcomas is an aggressive surgical resection of the tumor and the invading neighboring structures, if necessary. Wide surgical resection to obtain a tumor free margins is important to prevent early recurrence of the sarcoma [5]. According to report of Bradley and Caplan, resection of neighboring organs and structures is required in half of the patients to obtain R0 resection margins [6]. These structures are usually the kidneys, ureters, and the colon. Also in our case, the resection of the spleen, kidney, distal pancreas, left colon and sigmoid colon was performed with the resection of the sarcoma.

4. Conclusion

A retroperitoneal tumor especially a liposarcoma should be considered and ruled out in the differential diagnosis of a large, painless, slow-growing, non-reducible inguinal mass accompanying with abdominal complaints.

Conflict of interest

None.

Funding

None.

Ethical approval

Not a research study.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images.

Author contribution

Ali Tardu, Cuneyt Kayaalp and Ismail Ertugrul participated in the care of the patient. Ali Tardu performed the literature review and drafted the manuscript. Servet Karagul and Mehmet Ali Yagci assisted in the review of the literature and in revising the manuscript. Cuneyt Kayaalp was involved in revising it critically for important intellectual content. All authors read and approved the final manuscript.

Guarantor

Ali Tardu.

Disclosure

The authors have nothing to disclose.

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