Case Report

Intraabdominal abscess following inguinal hernioplasty

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ABSTRACT

The intra-abdominal omental abscess following hernioplasty is a rare late post-operative complication. We report on a patient with intraabdominal abscess that developed after an inguinal hernia repair that utilized synthetic mesh. Infection resolved following thorough debridement, mesh removal, percutaneous drainage for abdominal abscesses and prolonged antimicrobial therapy.

KEY WORDS: Intraabdominal abscess, Percutaneous drainage, Inguinal hernia.

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INTRODUCTION

Many complications have been described after inguinal hernioplasty in the text books of surgery. Tension- free prosthetic repair is known to improve the closure's durability. On the other hand, mesh can cause significant complications, including wound infection, chronically draining sinuses, enterocutaneous fistulas, intestinal obstruction, and hernia recurrence.[1] The reported incidence of mesh-related infection following hernia repair has been 1%–8% in different series.[2,3]

CASE REPORT

A 60-year-old female patient was admitted to our clinic with complaints of fatigue, weakness and irritability which had lasted for the last 20 days. The patient gave history of undergoing surgery for left inguinal hernia. Prosthetic mesh material was used for the surgical repair. Eighteen days later she noticed redness and swelling at the operative site. The patient was febrile upon admission (temperature, 38.8°C). The right inguinal hernioplasty site was erythematous and tender. Laboratory data demonstrated an increased total white blood cell count with neutrophilia (88%). An abdominal CT scan showed a 20 by 10- by 5-cm fluid collection in the abdomen (Fig-1, 2). Extensive debridement of the abdominal wall and preperitoneal space was performed, and the prosthetic mesh was removed. The patient initiated broad spectrum intravenous antibiotherapy and percutaneous drainage (PCD) guided by ultrasound was performed, with aspiration of grossly purulent fluid. A catheter was placed for six days, obtaining 110 ml of pus. (Fig-3) Microscopical examination of the fluid showed many polymorphonuclear cells without acid-fast bacilli and cultures for bacteria or

Fig-1: An abdominal CT scan showed a 20 by 10- by 5-cm fluid collection in the abdomen.

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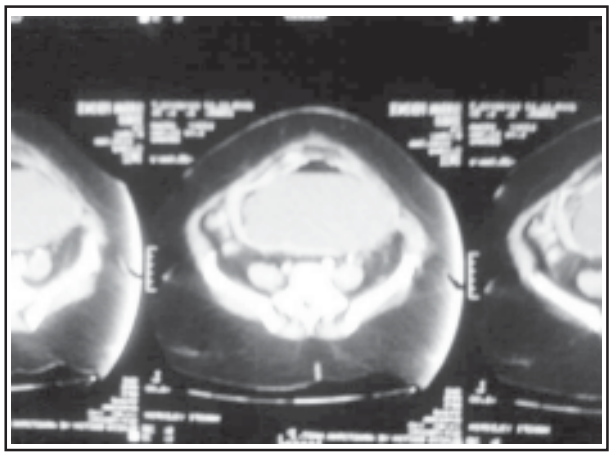

Fig-2: Another view of an abdominal CT scan showing a 20 by 10- by 5-cm fluid collection in the abdomen.

fungi were negative. The microbiological study of blood, sputum and urine was also negative. Routine bacterial cultures are nondiagnostic.

DISCUSSION

Infection was in the posterior wall first, which later on got localized in the omentum. It is possible that the proliferation of bacteria in the sac may have led to the development of the abscess. There is another possibility that the adherence to scar might be due to the transfixation stitch and mesh which might have gone through the intraabdominal cavity. Percutaneous drainage procedures are successfully performed using small-bore catheters.[4,5] Percutaneous drainage has become a widely accepted treatment for abdominal abscesses.[6,7] Drainability did not correlate with the size or site of abscesses or with the catheter size. Local anaesthesia is only required and this procedure can be performed readily on patients unfit for surgery. Computerized tomography represents the ideal in anatomical definition of abscess and in the planning of access routes, but ultrasound alone will usually provide sufficient information to establish diagnosis and guide therapy. If percutaneous drainage is inadequate, operative drainage may then be performed.[8] About 80-90% of all abdominal abscesses are technically approachable percutaneously when using ultrasonography and/or CT for guidance.[9] Wallace et al was reported a treatment failure with a similar infection when the mesh could not be removed.[10]

CONCLUSION

When a mesh-related infection occurs, a combined medical and surgical approach involving intravenous antimicrobial agents and complete surgical removal of the mesh is the preferred management strategy.

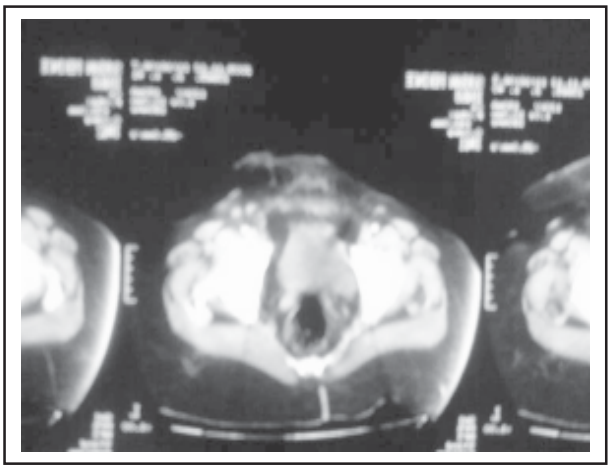

Fig-3: After treatment with aspiration of grossly purulent fluid.

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Authors Contribution:

1. Selim Sozen conceived, designed and did statistical analysis & editing of manuscript.
2. Seyfi Emir and Hasan Baki Altinsoy did data collection and manuscript writing.
3. Selim Sozen did review and final approval of manuscript.