



International Journal of Surgery Science

E-ISSN: 2616-3470

P-ISSN: 2616-3462

© Surgery Science

www.surgeryscience.com

2021; 5(1): 92-94

Received: 26-11-2020

Accepted: 29-12-2020

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Simultaneous strangulation of inguinal and femoral hernias in a male patient: A case report

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DOI: <https://doi.org/10.33545/surgery.2021.v5.i1b.596>

Abstract

We are presenting a case of Simultaneous strangulation of inguinal and femoral hernia's in a male patient, probably the first case in world literature, which was operated under local anaesthesia with a mesh and mesh plug repair after release of strangulations in both hernias. General and spinal anaesthesias were not recommended due to the poor condition of his lungs and post spinal fracture ankylosis.

Keywords: Femoral, hernia, inguinal, simultaneous, strangulation

Introduction

Hernia is an abdominal protrusion of a viscus or a part of a viscus through an opening or weakness in the wall of the cavity that contains it. Inguinal hernia is a commonest hernia. Femoral hernia is about 17 percent of all abdominal wall hernias. Inguinal hernias occur more commonly on the right side due to the embryological delayed or failed closure of processus vaginalis. Femoral hernias are also more common on the right side, which may be due to a lack of sigmoid colon covering the femoral canal..... The risk of an inguinal hernia becoming incarcerated or strangulated is estimated between 1% to 3% over a person's lifetime. Femoral Hernia strangulates frequently. Gangrene develops early due to narrow and tough femoral ring [1]. Femoral hernia can become incarcerated upto 30% of the time and should always be repaired surgically when found [2]. A combination of inguinal and femoral hernia in a male is not common. Simultaneous strangulation of femoral and inguinal hernias in a male patient is unheard-of.

We are presenting a unique case of simultaneous strangulation of a femoral and an inguinal hernia in a male patient, who was operated under local anaesthesia as general and spinal anaesthesia were not recommended by anaesthetist incharge due to the poor conditions of lungs and post spinal fracture ankylosis.

Case Report

A 78 Years old male was admitted to a Gurgaon hospital, Haryana, India, in causality department with painful irreducible swellings in both groins. Pain developed on the same day of admission and was severe on both sides. He was a known case of bilateral groin hernias. Left hernia was reducible for last 5 years and became painful and irreducible that day only. Right hernia developed only 15 days back. Severe pain appeared first on the left side then within half hour on the other side. It was an irreducible hernia but became painful only on same day. He was not having intestinal obstruction, but he vomited few times. He came to us after 14 hours of pain development. An urgent ultrasound was performed on whole abdomen which revealed bilateral strangulated (omentoceles) (figure 1) inguinal hernias with omentum and some fluid in the sacs.

Note: This scientific paper was presented in 4th International Congress of the Asia-Pacific Hernia Society, Beijing.

He was a patient of chronic obstructive pulmonary disease for last 10 years. He was smoking 20 cigarettes a day since 1940. He was chewing tobacco also for last 40 years. He was also suffering from backache after getting a spinal injury in 1947. He was also suffering from lumber spondylosis with disc prolapse.

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He was operated as an emergency case on the same day. Operation was performed under local anaesthesia as general anaesthesia was not suitable due to COPD and spinal anaesthesia was not suitable due to advanced ankylosis, lumbar spondylosis and slipped disc problems. First left groin hernia was explored with a 6 cm long incision. A strangulated indirect inguinal hernia, was found containing omentum and some straw colored blood stained fluid. The omentum was strangulated and was nonviable so it was excised. No loop of intestine was found in the hernia sac. Tension-free-hernioplasty was performed with a polypropylene mesh (15 cm x 7.5 cm).

The right side groin hernia was explored then by a 5 cm incision. The exploration revealed a femoral hernia coming out from distal femoral ring in the thigh and going above the inguinal ligament in the groin like a text book description (retort shaped). Femoral hernia was containing a part of omentum with some straw colored fluid. The strangulated omentum was excised as it was also nonviable. The femoral canal was packed with a 3 cm long polypropylene mesh cigarette plug (made on operation table from a polypropylene mesh) and fixed with inguinal ligament and surrounding structures with 2/0 polypropylene sutures. The wound was closed in layers.

Patient developed carbon dioxide narcosis as he was given a sedative on the operation table which decreased his efforts to breath. He was kept on BiPap machine in I.C.U. for positive pressure ventilation for 2 days. He gradually improved. Patient was discharged after 8 days and followed-up in OPD. He fully recovered from this episode of strangulation and carbon dioxide narcosis.



Fig 1: Bilateral strangulated groin hernias, femoral hernia on right side and inguinal hernia on left side.

Discussion

Hernias are common and it is estimated that 5% of individuals will develop an abdominal wall hernia over their lifetime.....^[3] Hernias are commonly located in groin regions.

The definitive treatment of all hernias, regardless of origin or type is surgical repair^[4]. Groin hernia repair is one of the most commonly performed operations. Over 20 million inguinal or femoral hernias are repaired every year worldwide^[5], including over 7,00,000 in the United States^[6].

75% inguinal hernias are on right side only 25% are in left side in men. Severe pain in inguinal hernia indicates strangulation. Patients who develop strangulation or bowel obstruction should undergo urgent surgical repair. Surgery performed within four hours to six hours from the onset of symptoms may prevent bowel loss due to one of these complications^[9]. Strangulated hernia occurs when the hernia contents are ischemic due to compromised blood supply^[8]. In this case, both hernias were having a strangulated nonviable omentum piece which were

excised. Inguinal hernia is 10 times more common than femoral hernia. Femoral hernia is 10 times more prone to strangulation than inguinal hernia due to tough and narrow femoral ring^[9].

It was not diagnosed on ultrasound as it was looking like an inguinal hernia. Though researchers feel that ultrasound is the most appropriate investigation with a high degree of sensitivity and specificity in experienced hands^[10]. Many times, the femoral hernia is wrongly diagnosed preoperatively as an inguinal hernia because the lending of femoral hernias to more upward to a position above the inguinal ligament. The correct, diagnosis often made only at the time of operation^[11]. This is what happened in this case.

Sir Astley Cooper, 'Anatomist and Surgeon, Guy's Hospital London, England was very right in saying, "The danger is in delay, not in the operation". August Charles Barnays (1854-1907) said that "always explore in case of persistent vomiting if a lump, however small is found occupying one of the abdominal rings and its nature is uncertain".

R. Bendavid feels that femoral hernias are over diagnosed due to the presence of a prominent femoral fat pad, a so called "femoral pseudo hernias"^[12]. Mortality is related to the duration of the strangulation and age of the patient. A longer duration leads to a greater degree of tissue edema, ischaemia ad risk of outright necrosis^[13]. The idea of a tension-free femoral hernioplasty was introduced in 1974 by Irving Lichtenstein. He rolled a piece of polypropylene mesh into a cylindrical shape (plug) and inserted into femoral ring from below^[14] Shulman *et al.* (1992); observed the efficacy and low recurrence rate of this technique^[15]. Also Arthur Gilbert in the late 1980's designed a mesh plug that was rolled by hand into the shape of an umbrella or cone. He concluded this technique worked better than Lichtenstein's cylinder shape plug^[16, 17]. Similarly, another study prepared by Rubbins and Rutkow (1998)^[18] on 24 patients underwent femoral hernioplasty with plug repair. There was no recurrence or other significant complications.

Disclosure Statement

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his /her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship: Nil

Conflicts of interest: There are no conflicts of interest

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