

A CADAVERIC MASSIVE STRANGULATED LEFT INDIRECT INGUINAL HERNIA

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ABSTRACT

Many forms of inguinal hernias have been found to have different contents ranging from abdominal to pelvic organs. A form of inguinal hernia with its contents made up of almost the whole of the small intestine and having a herniating sac as long as 28cm in length is indeed a rare form of inguinal hernia. Strangulated inguinal hernia is one of the commonest emergencies in surgery. The diagnosis may be made by physical examination disclosing a visible bulge or an easily palpable mass on straining with an examining finger in the external ring, the content of the hernia sac and the operation may vary. We present a rare case of a strangulated unusual left indirect inguinal hernia in a 56-year-old male cadaver with a large mass containing loops of small intestine which extends from the pubic tubercle to the mid thigh and found within the scrotal sac.

Keywords: Strangulated inguinal hernia, loops of small intestine, irreducible.

INTRODUCTION

Hernia is a protrusion of any of the abdominal contents through any of its walls. Hernia consists of a sac, contents and coverings. Sac is the protrusion of the peritoneum. It comprises of a neck, a narrowed part and a body (Chaurasia, 2010). Contents are mostly the long mobile keen to move out coils of the small intestine or omentum or any other viscera. The coverings are the layers of the abdominal wall which covers the hernia sac.

Inguinal hernias are more common on the right side than on the left and are 10 times more common in men than in women. (Nilsson, et al

1997; Fitzgibbons et al., 2015). When protrusion occurs through the deep inguinal ring, inguinal canal, superficial inguinal ring into the scrotum, it is called indirect or oblique inguinal hernia. It occurs in male infant and children and the hernia sac has a narrow neck. When the protrusion occurs through the weak posterior wall of the inguinal canal, the hernia is a direct inguinal hernia. It occurs in much older men and has a wider neck.

Majority of hernias occur in the inguinal region with the other types occurring in lesser percentages. Complications that can develop as a result of an inguinal hernia include obstruction

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and strangulation. Surgery might then be an option of getting rid of the hernia and preventing serious complications. Contents of an inguinal hernia include intestine, omentum and uncommonly the appendix, the ovary or urinary bladder and liver (Tufnell & Abraharn-Igwe, 2008). A scrotal hernia occurs when tissue passes through thin or weakened spots in the groin muscle which results in a bulge that may

be painful or cause burning. Many hernias are the result of heavy lifting and are more common in men than women. The symptoms of an inguinal hernia may include pain, discomfort, or a heavy feeling in the groin area, bulging of either side of the pubic bone or swelling near the testicles in men. Embryologically, persistent processus vaginalis may result in indirect inguino-scrotal hernia

CASE REPORT

During routine medical students' dissection, a 56-year-old male cadaver was observed to have a huge scrotal sac. There was difficulty in accessing the appendix and ileocecal junction until the scrotal sac (figure 2) was ripped open laterally and loops of small intestine (jejunum and ileum) and appendix found herniated in the sac (figure 3 & 4). The loops were strangulated and formed layers conically arranged caudally (figure 3). The loops crossed to the left to enter the deep inguinal ring lateral to the inferior epigastric artery. The neck (figure 3) of the hernia sac at the level of the internal inguinal ring was found to be wide. Spermatic cord was

not seen on the right side except on the left alongside the loops. Some pouches were found within the scrotal sac and the testicles could not be seen or palpated. Some measurements taken included the length of the herniating mass (figure 4) from the anterior superior iliac spine to the caudal most tip of the hernia, this was taken as 28 cm; another measurement from the pubic tubercle to the tip of the hernia measured 22 cm. The large intestine and other abdominal organs were positioned normally except for the jejunum, ileum, appendix and a unilateral spermatic cord.

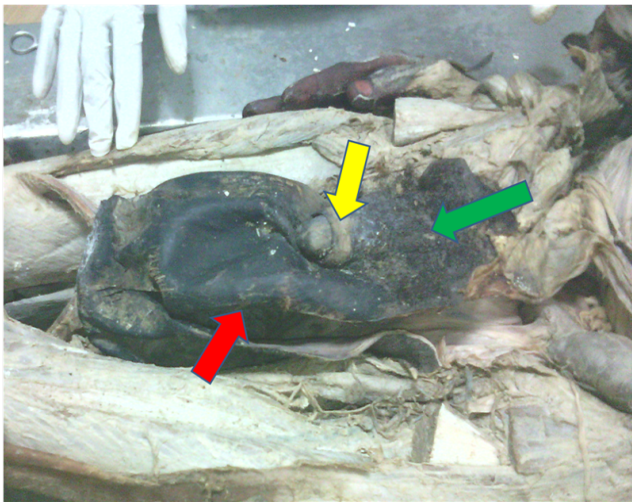


Figure 1: showing the hernia mass within the scrotal sac. Red Arrow = hernia mass within the scrotal sac, Green Arrow = pubic hairs, Yellow Arrow = penis.

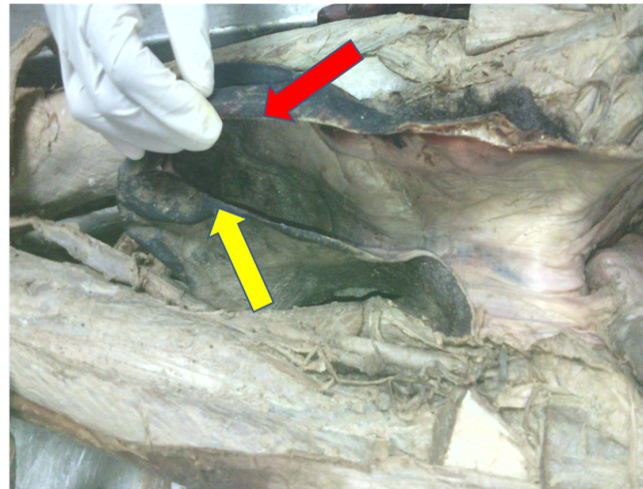


Figure 2: showing anterior and posterior walls of the hernia sac, Red Arrow = anterior wall, Yellow Arrow = posterior wall.

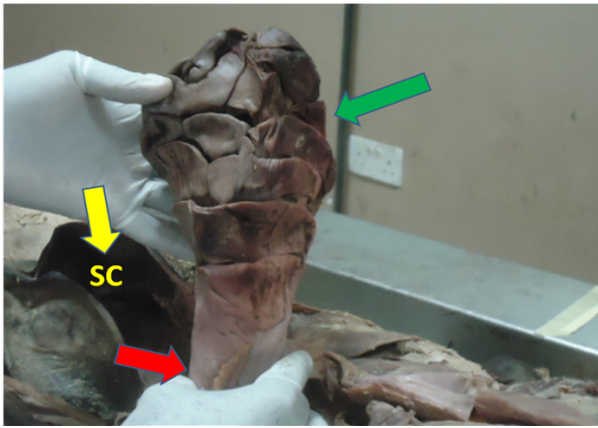


Figure 3: The hernia mass found in the scrotal sac (SC), Yellow Arrow = hernia sac, Green Arrow = hernia content, Red Arrow = neck

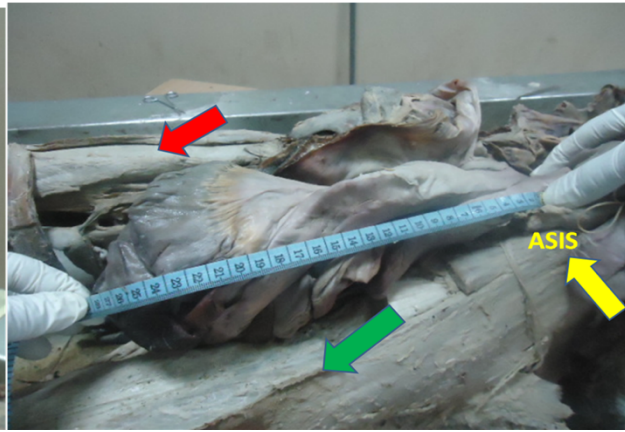


Figure 4: Showing the length of the hernia mass as measured from the anterior superior iliac spine (ASIS) 28cm, to the mid thigh. Yellow Arrow = ASIS, Green Arrow = left thigh, Red Arrow = right thigh.

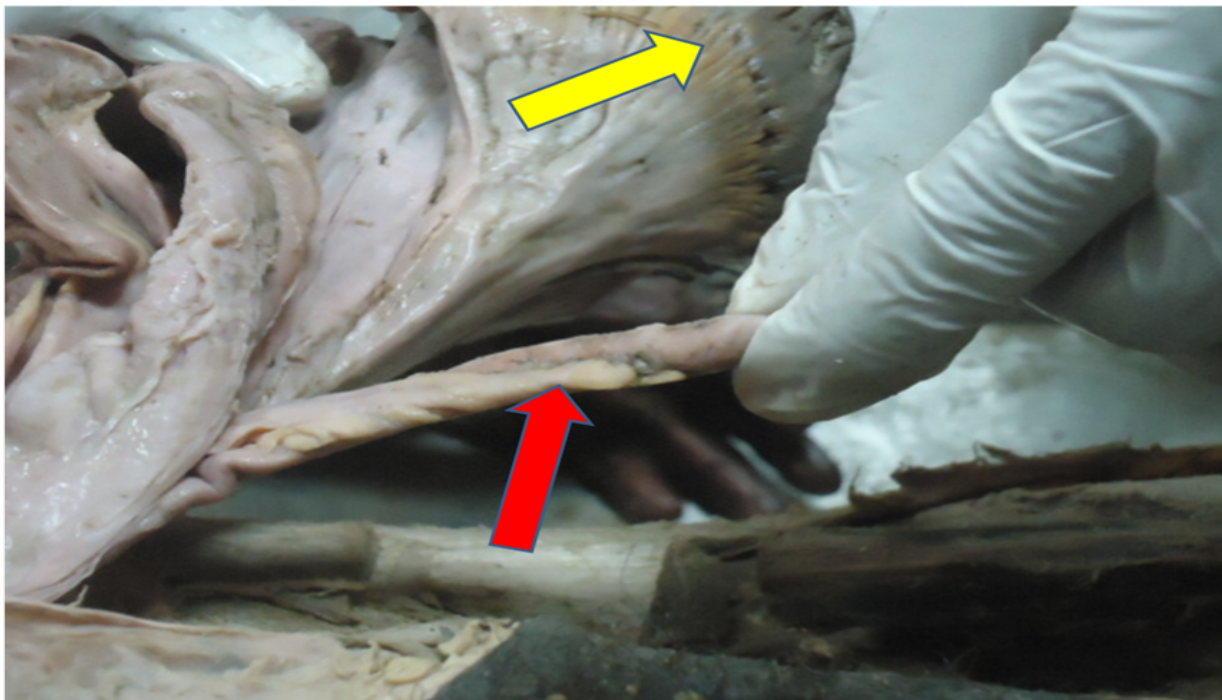


Figure 5: showing parts of the hernia mass, Red Arrow = vermiform appendix, Yellow Arrow = mesentery of the small intestine.

DISCUSSION

Inguinal hernias can lead to intestinal obstruction, strangulation and infarction (McFadyen and Mathis, 1994). In this report as shown in (figure 1), the content was a large left-

sided irreducible scrotal hernia with rigid consistency. The testes were absent or could not be palpated in the scrotal sac, and some pouches were found within the scrotal sac. The absence

of the testicles may be due to undescended testes as a result of the hernia. Most true cases of undescended testicles are associated with a patent processus vaginalis (Elder 1987). If an obvious hernia is present, quick hernia repair with orchiopexy at the age of presentation is undertaken. Otherwise, the hernia should be repaired at the time of orchiopexy. A man with an untreated, undescended testicle and an occult inguinal hernia may present at any time with symptoms and complications typical of any inguinal hernia (Steven et al., 2000).

In this case, the hernia occurred at the left side of the body which was in contrast to a report that most types of inguinal hernias are more common on the right side than on the left (Nilsson, et al 1997). The present case is an example of indirect form of inguinal hernia and it had been reported to be as twice as common as direct hernias (Fitzgibbons et al., 2015). Differentiating an indirect from a direct inguinal hernia is unnecessary, because it does not affect treatment. It is not always possible to differentiate an inguinal hernia from a more worrisome femoral hernia during physical examination. (Dahlstrand et al 2009). The

differential diagnosis varies according to the clinical presentation. In the case of a groin mass thought to be a hernia, other possible causes include lymphadenopathy, a soft-tissue tumor, or an abscess. Possible causes of scrotal masses include a hydrocele or a testicular tumor (Schouten et al 2012).

The present case of inguinal hernia was found in a male subject which also corroborated a report that inguinal hernias are 10 times more common in men than in women (Nilsson, et al 1997). In addition to the facts that inguinal hernias are more common in male sex, some studies have reported a major risk factor for inguinal hernia is a family history of groin hernias (Burcharth et al 2013), Other conditions reported to be associated with increased risk include chronic obstructive pulmonary disease, smoking, lower body-mass index, high intraabdominal pressure, collagen vascular disease, thoracic or abdominal aortic aneurysm, history of open appendectomy, and peritoneal dialysis. (Lau et al, 2007).

In conclusion, careful examination of the groin should be performed for any patient presenting with a bowel obstruction.

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