

CASE REPORT

A Busoga Hernia in Dhaka: A Case Report

Golam Haider Rasul¹, Golam Rasul²**Abstract:**

A case of Busoga hernia is described for the first time in Bangladesh. A 72 year old lady presented to a private consultation with a 12 hour history of painful swelling in the right groin. Surgical exploration revealed an omentocoele herniating through a 1 cm diameter defect in the conjoint tendon. This was diagnosed to be a Busoga hernia (direct hernia of funicular type). The condition was managed by herniotomy and herniorrhaphy. Recovery was uneventful.

Introduction:

Direct hernias usually result from stretching and thinning out of the conjoint tendon and overlying tissues. The Busoga hernia is a rare variety of direct hernia, which is associated with a well circumscribed fascial defect in the conjoint tendon. This type of hernia is commonly seen in the Busoga district of Uganda, hence the name. It was first reported from this area by Eckhart and Claxton. Again, in 1964, Cole found a lesser incidence of this hernia in Nigeria¹. Similar hernias were reported in the United Kingdom by Gill and Ogilvie². It has not been previously reported in Asian patients.

The Busoga hernia is clinically important because of its propensity to strangulation. Hancock found that 60% of all strangulated hernias at Jinja in the Busoga district were of this type³.

A case of direct omental herniation through a small fascial defect in the conjoint tendon (Busoga hernia) in a 72 year old lady is presented here.

Case report:

A 72 year old lady of aesthenic built presented to a private consultation with a swelling in the right groin, which was painful for the previous twelve hours. She had been aware of the lump for about one year. She had no history of vomiting.

On examination, the lady was uncomfortable, but not markedly distressed or dehydrated. A mildly tender lump was palpable about 2 cm in diameter, firm in consistency with slightly irregular surface, at the medial end of the fold of the groin. It did not have a cough impulse, and was not reducible. It was not possible to get above the swelling, but there was no extension of the lump towards the deep inguinal ring.

During operation, a small hernial sac containing non-gangrenous omentum was noted, which came out from the abdomen

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through a small circular opening (1 cm diameter) in the conjoint tendon. The omentum was reduced into the peritoneal cavity. Herniotomy was done and the defect closed in layers.

Discussion:

The Busoga or Gill-Ogilvie hernia is a herniation of the extraperitoneal fat, extraperitoneal structures or peritoneal contents through a small defect in the conjoint tendon^{3,4,5}. Claxton defined the anatomy of the lesion, stating that the hernia protrudes through a defect in the transversus component of the conjoint tendon, at the point where the muscle fibres become aponeurotic. It is separate from the spermatic cord and the cremaster muscle (Fig.-1)². The neck of the sac is described as "small, rigid", and is the main reason for the high incidence of strangulation. The sac is covered by a layer of extraperitoneal fat, which separates the sac from the transversalis fascia. The patients do not tend to be obese, and rather have good musculature⁴. The Busoga hernia differs anatomically from the usual direct hernia in that in the latter it is usually found that there is a poorly circumscribed bulging of the posterior wall of the inguinal canal, which rarely if ever strangulates².

Zivanovic suggested that the "Busoga hernia" may be due to an acquired defect based on a genetically predisposed pelvic configuration. That is, there is a steep slope of the inguinal ligament in these patients, which means that the aponeuroses of the abdominal muscles are weakened inferiorly. Also, the lower border of the internal oblique muscle and its aponeurosis is usually slightly above the level

of the aponeurotic arch of the underlying transversus abdominis muscle, so that in 97% of cases it does not actually take part in the formation of the lowest part of the conjoint tendon. Hence the "Busoga hernia" passes through the transversus aponeurosis without also passing through the internal oblique.⁶ On the other hand, the usual direct hernia probably arises due to weakness of the muscles and fascia of the inguinal region, often associated with advancing age.² Raised intra-abdominal pressure in this group of patients may be associated with the dietary habit of taking a single large meal a day⁵.

The Busoga hernia first appears in young adults and the maximal incidence of strangulation is in the fourth decade³. The hernia is usually small and contains small intestine, often of the Richter variety. It may not contain a peritoneal sac, when only bladder or extraperitoneal fat are found to be herniated⁵. This sac itself may become gangrenous due to strangulation. The patient may often present with an abscess in the inguinal region or a fistula arising from perforation of a Richter's hernia³.

With regard to the operative management of the hernia, in the case of small hernias, the sac is separated from the spermatic cord, and does not need to be dissected from it. However, the sac can only be opened after dissecting through the layer of extraperitoneal fat covering it. Again, as opening the sac may prove difficult, the defect in the transversus muscle may be extended laterally (taking care to protect the inferior epigastric vessels). The peritoneal cavity is then opened proximal and lateral to the neck of the sac, to allow the sac to be opened under direct vision without fear

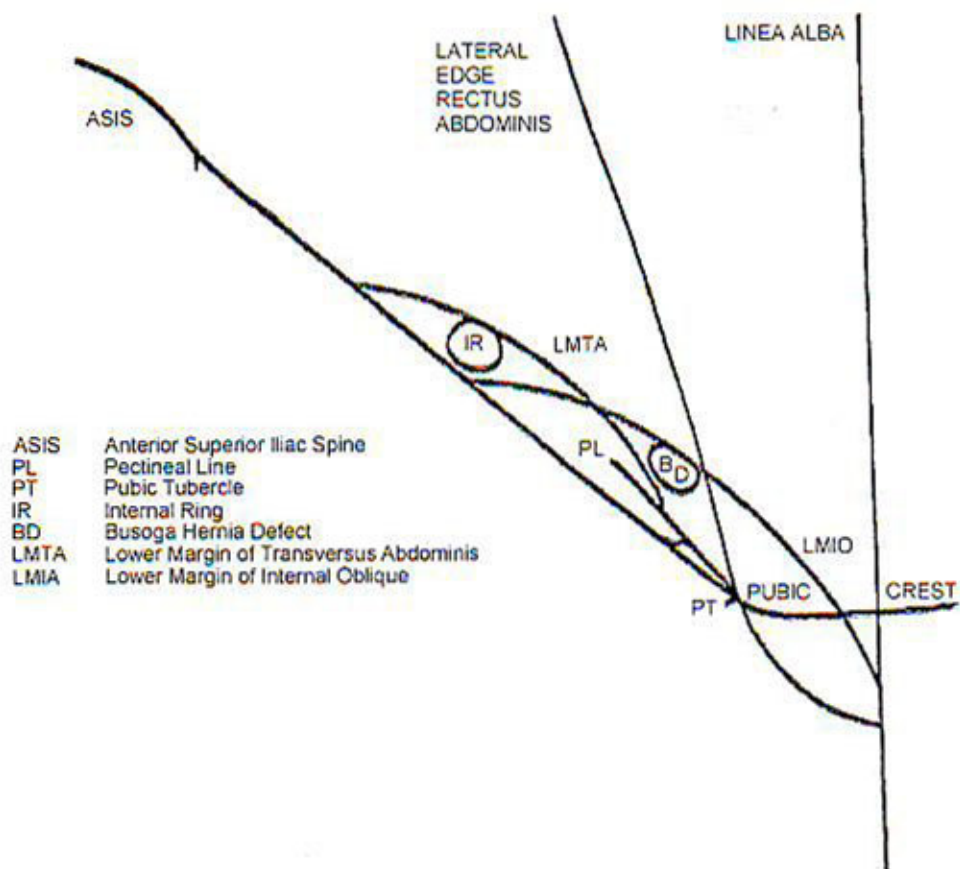


Figure-1: Anatomy of a Busoga hernia. Adapted with kind permission from Claxton RC. "Busoga hernia".

of injury to the bladder. The neck of the sac is freed and herniotomy is done. Simple anatomical repair of the fascial defect usually suffices in the case of small hernias, but when the hernia is large, a modified Bassini type repair is done.

The Busoga hernia is an interesting variant of the direct hernia. Its diagnostic features are that the sac passes through the transversus component of the conjoint tendon, so that the musculo-tendinous fibres can be identified on either side of the neck of the sac. The sac itself is above and medial to the spermatic cord and is separate from it. Its clinical significance lies in the high incidence of strangulation of the

contents due to the narrowness of the neck. Indeed, when the content is gut, the result is often a Richter's hernia, with strangulation of only part of the wall of the hernia. During operation, the spermatic cord needs not to be dissected. When the hernia is small, the posterior wall of the inguinal canal is intact, and it is only necessary to excise the sac and repair the defect anatomically.

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