

# Incarcerated sigmoid colon with gangrenous appendices epiploicae: A rare case report

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## Abstract

Incarcerated inguinal hernia is a common diagnosis in patients presenting with a painful and not reducible groin mass. Sliding hernias are supposed to be more anatomically challenging for a surgeon than an uncomplicated inguinal hernias. The anatomical and physiological concept of sliding inguinal hernia is frequently misunderstood by surgeons of all levels of experience. Except in sliding hernia, the sigmoid colon is uncommonly found in an inguinal hernia.

**Keywords:** Incarcerated Inguinal Hernia left side, Sigmoid colon, Appendices epiploicae

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## Introduction

A sliding inguinal hernia is a protrusion of retroperitoneal organ through an abdominal wall defect and these are usually direct inguinal hernias containing various abdominal viscera. It is estimated that 75% of all hernia occur in the inguinal region [1]. Frequency of sliding hernia is estimated at 3-8% of all elective operations of inguinal hernias. Inguinal hernias have a nature to surprise with its unexpected contents. Appendix epiploicae in the hernia sac is a rare entity and that too if hypertrophied and presenting as irreducible hernia is still more uncommon. The content of the hernia sac may vary and nearly all the abdominal

organs have been found within hernia sac [2]. Epiploic appendices were first described by Vesalius in 1543 as anatomic entities along the antimesenteric teniae coli [3]. Hypertrophied and strangulated epiploic appendix in the sac of inguinal hernia is very rare and not many cases have been reported in the literature. The medline search shows case reported from Turkey in 1989 and Russia in 2005 [4,5]. We present an unusual case of incarcerated left inguinal hernia containing sigmoid colon with abnormal hypertrophied growth of appendices epiploicae engulfing another gangrenous appendices epiploicae in it.

## Case Report

A 58 year old male was admitted with complain of painful swelling left groin since last 10 days, he had the history of swelling since last one year which was reducible. No previous history of any surgery.

Per abdominal examination was soft, non-tender, bowel sounds present, there was a tender non reducible swelling in the left inguinoscrotal region, cough impulse negative with feeble gurgling sound on auscultation, could not reach above the swelling in scrotum, left testis was palpable separately non tender, transillumination was negative. X-ray abdomen was normal; CT scan showed that there is herniation of sigmoid colon with abdominal fat through a defect into left inguinal region. The abdominal fat is seen reaching up to the left scrotal sac along with small loculated collection.

The patient was investigated and taken for surgery, intraoperatively it was found that it was a direct incarcerated sliding inguinal hernia with sigmoid colon and its appendices epiploicae one of which was hypertrophied into a mass engulfing other appendices (fig1) which was twisted around it and was gangrenous with seropurulent fluid around its attachment in the scrotal sac.

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## Case Report



**Fig-1: Hypertrophied appendices epiploicae**



**Fig-2: Gangrenous appendices epiploicae**

The contents of the sac were dissected, the gangrenous appendices epiploicae (fig2) was excised and sent for histopathology, contents were reduced and hernioplasty done with prolene mesh. The post-operative period was uneventful and patient was discharged in a week in satisfactory condition. He is being followed up in the outpatient department.

### Discussion

Although the first description of sliding inguinal hernia is often attributed to Galen, the first precise, modern description of sliding hernia accentuating “specificity” of this condition was made by Antonia Scarpa (1752-1832), Italian Anatomist and surgeon professor at the University of Pavia in northern Italy. In his work “Sull’ernie” (on hernias) he described in details the sliding variant of inguinal hernia [6]. In adults virtually all cases of sliding hernias are seen in males [7]. Incarceration of inguinal hernias occur in 10% of cases which in turn can lead to obstruction, strangulation and infarction [8]. Among these complications, strangulation is the most serious with potentially lethal sequelae [9].

The content of inguinal hernias varies widely but in our case the contents of the hernia sac was the incarcerated loop of sigmoid colon probably due to redundancy. To our knowledge we were seeing that unusual presentation of Appendices epiploicae for the first time; they were hypertrophied into a tubular mass engulfing and encircling other gangrenous appendices.

Appendices epiploicae are fat containing peritoneal out pouching’s arising from the serosal surface of the colon, found at any point between caecum and recto sigmoid colon. The length may vary from 0.5 and 5cm [10]. These may have bacteriostatic properties, may act as a cushion to blood vessels and may perform absorptive action of the large bowel.

Appendix epiploicae as a content of the inguinal hernia sac is a rare phenomenon and very few cases have been reported by now [4, 5]. Further hypertrophied and

inflamed or gangrenous epiploicae as content of inguinal hernia is also more rarely seen [11]. Earlier cases on relation of epiploicae appendices and hernia have been reported from USA as early as 1920 [12]. Mayank Jain has reported a case of epiploic appendagitis as an inguinal hernia content which was treated laparoscopically [11]. Huseyin Ozkurt has described CT scan as diagnostic investigation modality in case of epiploic appendagitis, one of this case had incarcerated inguinal hernia with inflamed and oedematous appendix epiploicae of the sigmoid colon in the hernia sac [13]. Traditionally sliding hernia was considered difficult to operate on [14].

Our patient had hypertrophied and gangrenous appendix epiploicae of the sigmoid colon incarcerated in the inguinal hernia sac which was removed and the inguinal hernia repaired. The patient recovered well after being discharged from the hospital and was followed regularly post operatively with uneventful progress.

### Conclusion

Inguinal hernia is a common clinical condition which may be having varied contents in its hernial sac and the list of contents is constantly increasing. We came across an altogether different presentation of Appendices epiploicae which we thought to share. Timely presentation of the patient to the doctor and timely surgery helps in decreasing the mortality and morbidity of any acute cases which should not be neglected.

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**Case Report****References**

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