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# ULTRASONICALLY DIAGNOSED OBSTRUCTED FEMORAL HERNIA

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## ABSTRACT

25% femoral hernias are misdiagnosed surgically[1] because they are small and sometimes concealed in fat in elderly obese women. This case report reemphasises the value of the simple and practical investigation of ultrasonography in making the correct diagnosis and management. It is especially of value because it is noninvasive.

Key words: femoral hernia, ultrasonogram

## INTRODUCTION

Femoral hernias though less common than inguinal hernias can still confront the general surgeon with or without palpable mass in the groin, sometimes patients presenting with obscure abdominal pain[1]. 25% of femoral hernias are misdiagnosed surgically[2]. Ultrasound imaging of the swelling can clinch the diagnosis and put one on the right track. Though B mode ultrasonogram imaging of femoral hernia is already known and described, this case report aims to reemphasise the value of ultrasound in groin swellings which have a wide differential diagnosis.

## CASE REPORT

A 46 year old lady presented to the surgical OPD with complaints of pain abdomen and vomiting of 2 days duration, swelling in the left inguinal region (fig 1) , of 6 months duration. On examination, she had a swelling in the left groin of size 3x2 cms in the inguinal crease. The swelling was tense and tender without any cough impulse or abdominal distension. Apart from leucocytosis, routine investigations were within normal limits. Plain X ray of the abdomen was nonspecific. Ultrasound imaging of the abdomen and pelvis was done using B mode ultrasonography. With the probe over the groin swelling, a dilated small intestinal loop was seen(fig 2). Herniation of the peritoneum was also visualized (fig 3). With these findings, a diagnosis of obstructed/strangulated left femoral hernia was made and she was taken for emergency surgery after preoperative preparation.

Under spinal anaesthesia, a left inguinal incision was made and the left inguinal canal was opened. The groin swelling was exposed by reflecting the lower flap of the inguinal incision. In the inguinal canal, in the Hesselbach's triangle, the peritoneum was opened and a small intestinal loop was found herniating through the femoral canal and presenting as the groin swelling. The region of the pectineal ligament, lacunar ligament and inguinal ligament was exposed from above and the lacunar ligament was divided on a grooved director, after which it was possible to deliver the herniated small bowel loop by gentle traction from above. Straw coloured fluid found in the sac was drained

The herniated small bowel loop was slightly bluish in colour but after release it became pink (fig4), with resumption of peristaltic movements denoting viability. Hence the small bowel was replaced in the peritoneal cavity and peritoneum was closed. 3 No.1 prolene stitches were used to close the femoral canal by approximating the inguinal ligament to the pectineal ligament. Wound closed in layers. Postoperative course was smooth. Sutures were removed on $10^{th}$ postoperative day and wound healed primarily.

## DISCUSSION

Though B mode ultrasound imaging of femoral hernia is already known and described, this case report aims to reemphasise the value of ultrasound in groin swellings which have a wide differential diagnosis. Since even in obstruction, the femoral hernial swelling itself often remains small and often overlaid by abdominal fatty apron, either missing the hernia or misdiagnosis as an enlarged groin lymph node or misadventurous FNAC can all be averted by the simple expedient of clinching the correct diagnosis by ultrasound imaging which is simple, safe, non invasive, widely available, economical and patient friendly.

## CONCLUSION

In every patient with isolated groin swelling with or without symptoms of pain or Intestinal obstruction, we believe that B mode ultrasonic imaging would be a great help and aid in the correct diagnosis and management of the patient in cases of femoral hernia and differential diagnosis of groin swellings. Ultrasonography is also patient friendly, economical, widely available and noninvasive investigation.

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**Fig 1 : Preoperative photograph**

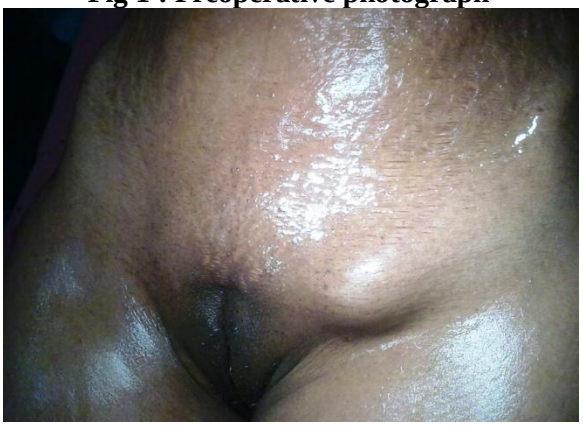

**Fig 2 : Obstructed small bowel loop in femoral hernia-USG image**

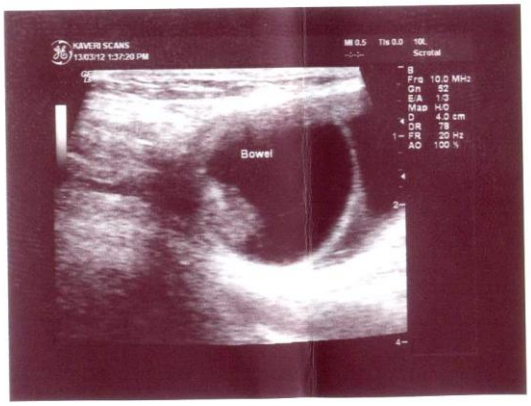


**Fig 3 : Peritoneal hernia sac in femoral hernia-USG Image**

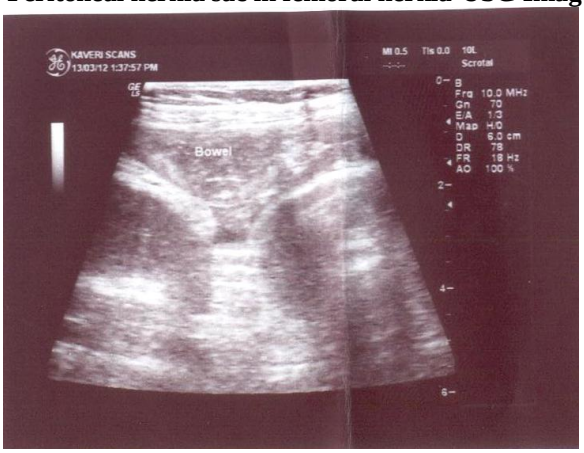


**Fig 4: Small bowel recovering after release of strangulation**