

# Giant Groin Lipoma Deluding as Hernia: A Case Report

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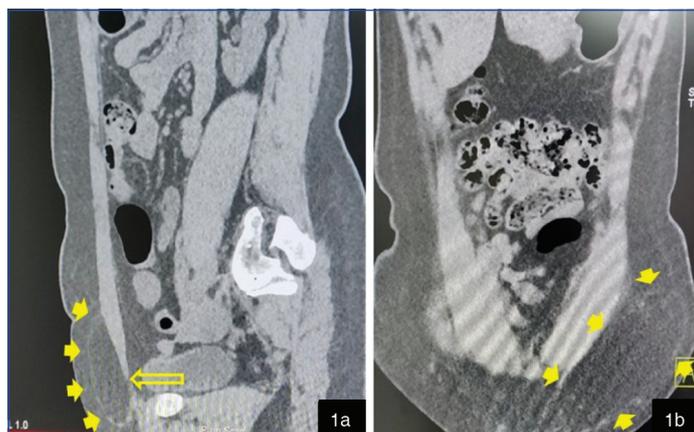
## ABSTRACT

Diagnosis of a soft tissue tumour in groin region is rather misleading owing to the fact of similarity in complaints of pain and swelling, especially in cases of irreducible groin hernias. Strategic selection of investigations and treatment option plays an enormous role in preoperative management of these patients. Authors present a case of a 36-year-old female with a previous history of two caesarean sections through Pfannenstiel incision with a soft tissue irreducible swelling in left inguinal region. Computed Tomography (CT) abdomen revealed a groin lipomatous lesion. Groin lipomas should be included in the differential diagnosis of irreducible groin swellings. A history of previous caesarean section in this patient prompted us to have a provisional diagnosis of incisional hernia. Meticulous planning of specific treatment strategy is essential for an effective outcome.

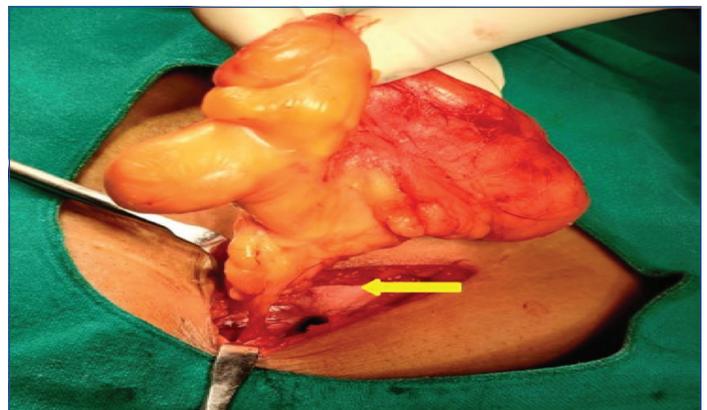
**Keywords:** Groin swellings, Inguinal hernia, Lipoma of round ligament

## CASE REPORT

A 36-year-old female presented with a swelling in left inguinal region for 6 months that was progressively increasing in size, associated with dragging pain and irreducibility. She gave history of two caesarean sections done 3 years and 5 years back. Patient was not taking any treatment for the same complaints and there was no significant family history. On examination, a 12 cm Pfannenstiel scar was present 4 cm above the pubic symphysis. A firm, tender swelling of size 6×5 cm was noted in left groin region with no overlying skin discolouration and was extending upto pubic symphysis. There was no evidence of cough impulse or sign of reducibility. A clinical diagnosis of incisional hernia was made. Ultrasound abdomen was suggestive of a 14×6 cm hyperechoic homogenous lesion without any defect in anterior abdominal wall. Computerised Tomography (CT) scan of abdomen showed a circumscribed, low attenuation mass of size 15×8 cm, suggestive of lipoma, superficial to left external oblique aponeurosis, without any defect in anterior abdominal wall [Table/Fig-1a,b]. Patient was subjected to inguinal exploration under regional anaesthesia. A lipomatous lesion of size 15×8 cm was found superficial to external oblique aponeurosis [Table/Fig-2]. There was no communication found with round ligament or preperitoneal adipose tissue. Complete excision of the tumour was done [Table/Fig-3] and histopathology confirmed the diagnosis of lipoma. The postoperative course was uneventful.



**[Table/Fig-1a and b]:** Computed Tomography (CT) abdomen coronal and sagittal images showing low attenuated mass (solid arrows) superficial to external oblique aponeurosis (yellow blank arrow).



**[Table/Fig-2]:** Intraoperative picture showing origin of lipoma above external oblique aponeurosis (yellow arrow).



**[Table/Fig-3]:** Specimen of giant lipoma measuring 15×8 cm.

## DISCUSSION

Lipomas in the groin region can be associated with inguinal hernia or can arise de novo, the later been termed as true lipoma of the groin [1,2]. True lipomas are not continuous with preperitoneal or retroperitoneal adipose tissue. Lipomas commonly encountered during inguinal hernia surgeries are in close relation with spermatic cord or round ligament with or without presence of hernial sac [2]. According to Lilly MC and Arregui ME in females, lipoma of the round ligament was found to be in 36% of patients operated for inguinal hernia [3]. No such association was found in the present case report.

Clinical diagnosis of inguinal hernia is established with signs of positive cough impulse, increase in size of swelling on doing

strenuous activities and more importantly reducibility on lying down or at rest. Only in the cases, if swelling is irreducible then the spectrum of differential diagnosis includes soft tissue tumours, inguinal lymphadenopathy, psoas abscess and vascular malformations. Inguinal lipomas are relatively inconspicuous, until they enlarge and produce symptoms of dragging pain interfering with day-to-day activities and clinical signs of soft to firm, tender and irreducible swelling [1].

According to a study done by Heller CA et al., on cadaveric patients, the lipomas in the inguinal region are circumscribed, pedunculated lesions lying along the long axis of inguinal region, are located deep to external oblique aponeurosis and form as a result of pull of gravitational force on semi-fluid preperitoneal fat assisted by constraining effect of anterior abdominal muscles and fascia in the vicinity of deep inguinal ring [4]. But, in the present case report, the lipoma was not pedunculated and was lying superficial to external oblique aponeurosis, thus, satisfying the definition of true lipoma of groin region. Hollinsky C and Sandberg S have quoted the incidence of such true lipomas to be around 2.1% [5].

Lipomas in inguinal region can grow enormously and may mimic inguinal hernia [6]. In such cases, ultrasonography of inguinal region reveals a hyperechoic mass suggestive of lipoma with 75% accuracy and absence of connection with preperitoneal space along with absence of vascularity on colour doppler confirms the diagnosis of a true lipoma [7]. The CT abdomen can also aid in diagnosis in accurately localising the lesion and absence of defect in anterior abdominal wall [1]. In the present case report, proximity of lesion to previous caesarean scar and location of lesion in inguinal region prompted us to make a diagnosis of incisional or inguinal

hernia, which on ultrasonography and CT imaging was found to be a true lipoma.

Surgical excision is the treatment of choice for true lipomas of groin. One must be aware of 'tip of iceberg' phenomenon and complete excision of lipoma is necessary to prevent recurrence. There is a possibility of true lipomas of groin being overlooked, with the advent of hernia repairs by laparoscopic techniques. Preoperative diagnostic imaging modalities like ultrasound or CT play an important role in formulating the treatment plan.

## CONCLUSION(S)

Groin lipomas can pose a diagnostic challenge especially in irreducible groin swellings. Preoperative imaging is helpful in patients with a swelling without a cough impulse. As laparoscopic techniques are not useful for diagnosis and alleviating the symptoms of a true groin lipoma, such cases warrant an open surgical excision.

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