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## Giant right groin lipoma mimicking inguinal hernia

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## ABSTRACT

**INTRODUCTION:** Groin lipoma is a rare condition. Such localization may lead to erroneous interpretation of inguinal hernia diagnosis. In case of incorrect diagnosis, there is clinically high risk for development of intraoperative complications.

**METHODS:** The medical history of 70-year old female patient P., who has been hospitalized at Surgical Department No.1 of Danylo Halytsky Lviv National Medical University (Surgical Department of Lviv Regional Clinical Hospital), was processed retrospectively.

**RESULT:** Medical case history totals approximately 20 years. Examination in the right groin revealed a tumor falling to the right labia lip: soft, elastic, moderately painful, passive and active reduction into the abdominal cavity was impossible, and the “cough impulse” symptom was negative. CT correctly diagnosed giant right groin lipoma, which was intraoperatively confirmed.

**CONCLUSION:** Lipoma in the groin may be treated as inguinal hernia. Thus, for the accurate verification of correct diagnosis, it is necessary to perform a follow-up examination involving computer tomography (CT) and nuclear magnetic resonance imaging (NMRI).

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## 1. Introduction

Localization of lipoma in groin area is rarely presented. In addition, differentiation of lipoma from inguinal hernia is rather complicated due to similarity of clinical symptoms and physical examination findings [1]. This leads to false diagnosis, which, in turn, may serve as a basis for selecting erroneous treatment strategy with development of serious complications. In this article, we have described a case of successful diagnostics and treatment of female patient with giant lipoma in the groin area.

## 2. Case report

The patient was admitted with complaints of evagination in the right inguinal region. Twenty years ago, the female patient was diagnosed with a tumor in the right groin, which was gradually increasing in size. Examination in the right groin revealed a tumor falling to the right labia lip (see Image 1). When palpated, the tumor was softly elastic, not painful, passive or active reduction into abdominal cavity was impossible. The “cough impulse” symptom was negative. Clinically, large irreducible indirect inguinal hernia was suspected. Ultrasound revealed visualization of homogenous isoechogenic tumor located above the aponeurosis of the external oblique muscle of the abdomen; anterior abdominal wall defect was negative; external inguinal ring was not expanded. CT stated that the mentioned tumor was an organized accumulation of adi-

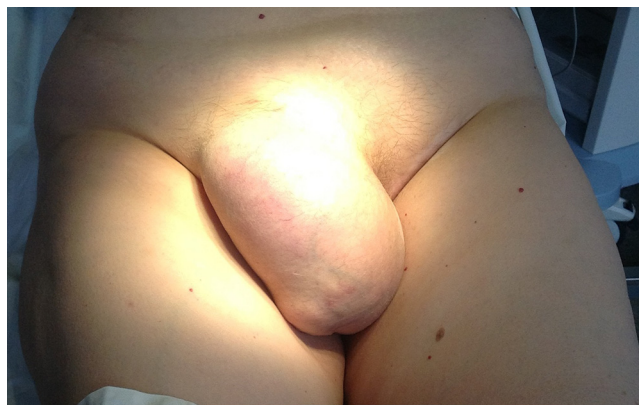


Image 1. Tumor-like mass of the right inguinal region on the groin.

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pose tissue with no connection to the parietal peritoneum being a giant lipoma in inguinal region (Image 3). The female patient was qualified for surgery. Under general anesthesia, irregularly-shaped lipoma, 20 × 12 cm sized, was removed from surrounding tissue through typical herniotomy of 15 cm (Image 2). In result of inguinal canal examination, no pathological changes were found. The diagnosis of “giant groin lipoma” was pathologically confirmed, which may fully be comparable with CT results. Postoperative period went without complications. On the tenth postoperative day, the patient was discharged from the hospital.



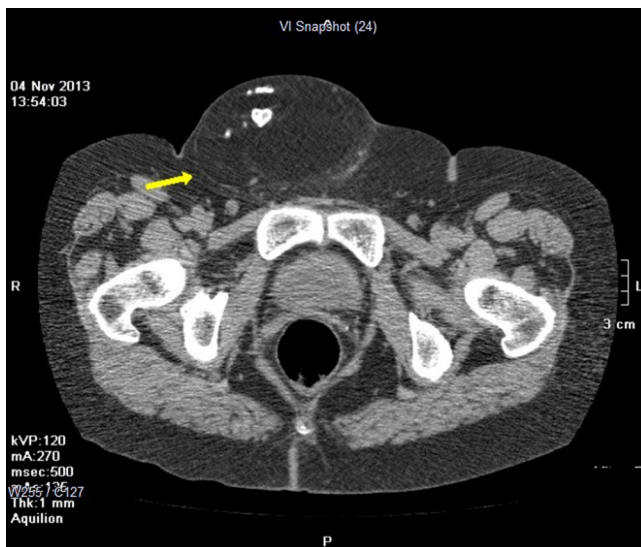


Image 2.



Image 3.

### 3. Discussion

Establishing diagnosis, inguinal hernia was suspected; it was supported with following typical signs and symptoms: tumor falling to the right labia lip was visualized; on palpation, the tumor was soft, elastic, moderately painful. Thus, ultrasonography was uninformative due to the large size of tumor, lack of data on the entirety of the aponeurosis of the external oblique abdominal muscle and connection to the abdominal cavity. In such cases, it is necessary to expand the diagnostic methods with CT or MRI.

In present case, CT played a crucial role allowing, firstly, exclusion of such disorders as inguinal hernia, aneurysm of great saphenous vein (GSV) [2], inguinal lymphadenopathy, cold abscess,

and, secondly, assigning adequate treatment. The diagnosis was confirmed intraoperatively as well. Open surgical treatment with groin incision is considered to be better in those cases.

Using a classical treatment strategy for inguinal hernias, namely laparoscopic hernioplasty, will be ineffective.

### 4. Conclusion

Notwithstanding the fact that giant lipomas in the inguinal region are considered to be a rare pathology, it should be paid attention to, especially when inguinal hernia is diagnosed. Otherwise, misdiagnosis may lead to wrong treatment strategy. In such circumstances, the presence of a slightest doubt about the diagnosis of “inguinal hernia,” the range of traditional examinations should be expanded by involving CT or MRI. Open surgical treatment is considered to be better in those cases.

### Conflict of interest

No conflict of interest.

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### Ethical Approval

Ethical committee approval Danylo Halstky Lviv National Medical University number 5/2014.

### Author contribution

Igor Gerych-Concept and design.  
Taras Ivankiv-Data collection.  
Oleksii Ogurtsov-Data analysis, interpretation, writing the paper.  
Nazar Kalynovych-Data collection.

### Guarantor

Igor Gerych, MD, PhD, Professor.  
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Oleksii Ogurtsov, MD.

### Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

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