

Lipoma of the Ischiorectal Fossa: A Rare Case Report

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ABSTRACT

Ischiorectal fossa (IRF) masses are uncommon and pose significant diagnostic challenges because of their varied etiologies. This case report presents a rare case of an IRF lipoma in a 55-year-old female patient characterized by a large, benign gluteal mass. Clinical evaluation included imaging with contrast-enhanced magnetic resonance imaging (MRI), which confirmed the presence of a 147x67 mm transverse lipomatous mass extending into the right gluteal fold without malignant features. Surgical resection was performed using the posterior midline approach, which allowed complete tumor removal with optimal cosmetic outcomes. Postoperatively, the patient remained symptom-free, with no recurrence noted after 8 months. This report emphasizes the importance of MRI in the diagnostic process and surgical planning of IRF masses and highlights the rarity and unique characteristics of lipomas in this anatomical location.

Keywords: Ischiorectal fossa, lipoma, benign tumor, tumor recurrence

INTRODUCTION

The ischiorectal fossa (IRF), also known as the ischioanal fossa, is a fat-filled anatomical space. Its boundaries include the levator ani muscle superiorly, the obturator internus muscle and fascia laterally, the external anal sphincter muscle medially, the perineal muscles anteriorly, and the skin inferiorly [1]. Tumors in this region are typically benign, although they may manifest as perianal or gluteal swellings, sometimes compressing adjacent structures such as the rectum, anus, or bladder, causing symptoms like obstruction. The diagnostic tools of choice include computed tomography and magnetic resonance imaging (MRI), with biopsies being recommended primarily when malignancy is suspected [2,3].

CASE PRESENTATION

A 55-year-old woman presented with a growing mass in the right gluteal region, which had been developing for 3 years. She experienced symptoms such as discomfort, dysmenorrhea, and constipation. A clinical examination revealed a large protruding mass from the right gluteal area. MRI demonstrated a 147x67 mm mass in the right ischiorectal region, extending into the gluteal fold, exerting pressure on the anal sphincter and pelvic floor muscles. The differential diagnosis included lipoma, low-grade liposarcoma, and epidermoid cyst [4].

Pathological examination confirmed the diagnosis of a benign lipomatous mass (Figure 1). An open biopsy was performed, and histopathological examination of the specimen revealed fibrolipoma with no signs of atypia. As the surgical method we used “Perineal approach” technique. This technique improves the visibility and removal of lipomas.

DISCUSSION

Tumors originating in the IRF are rare. Due to the anatomical complexity and deep location of this region, they pose significant diagnostic and therapeutic challenges. The IRF is a fat-filled space and is prone to various types of masses, but most are benign and non-aggressive. However, due to their proximity to critical pelvic structures, including the rectum, anus, and pelvic floor, these tumors can cause different symptoms depending on their size and location. Common presenting symptoms include swelling, discomfort, pain, and, in some cases, obstructive symptoms like constipation or urinary retention. This case is notable for its presentation with a large lipomatous mass causing pressure-like symptoms but without malignant features, which is consistent with previously reported cases of benign lipomatous tumors in the IRF [5].

Lipomas which are common benign tumors, are infrequently found in the IRF, with only a handful of cases documented in the literature. These tumors arise from mature adipose



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tissue and are typically slow-growing, as seen in this case, in which the patient had a history of gradually enlarging masses over 3 years. The use of MRI has played a crucial role in both diagnosis and surgical planning. MRI is considered the gold standard for imaging soft tissue tumors, providing excellent differentiation between fatty and non-fatty tissue, as well as detailed information on the size, shape, and relationship of the tumor to adjacent structures [1,6]. MRI findings of a homogenous, well-defined mass with signal characteristics similar to subcutaneous fat strongly suggest a diagnosis of lipoma. However, it is important to distinguish between benign lipomas and liposarcomas, which can have overlapping imaging features. In cases in which MRI findings are ambiguous or in which there is a suspicion of malignancy, biopsy may be warranted to confirm the diagnosis [4].

Surgical excision remains the treatment of choice for symptomatic IRF lipomas, particularly when they cause significant discomfort or functional impairment. The posterior midline approach in this case allowed for adequate exposure and complete tumor resection. This approach is often favored for IRF tumors due to the deep-seated location and proximity to vital structures. Complete excision is important to minimize the risk of recurrence, which has been documented in other IRF tumors, particularly those with malignant potential, such

as aggressive angiomyxoma [7,8]. In contrast, lipomas have a much lower risk of recurrence following complete resection. In this case, at the eight-month follow-up, the patient did not present with symptoms, and no recurrence was observed, highlighting the efficacy of the surgical intervention.

One of the challenges in managing IRF tumors is ensuring that no residual tumor tissue remains postoperatively, as incomplete excision is associated with a high risk of recurrence. Although benign tumors like lipomas have a low recurrence rate, careful follow-up is still warranted to monitor for signs of recurrence, particularly within the first year after surgery. In the case of aggressive tumors, such as liposarcomas and angiomyxoma, early recurrence is a well-documented phenomenon, and close postoperative surveillance is critical [2].

Furthermore, it is important to note that although most IRF tumors are benign, a thorough differential diagnosis is necessary. Other potential tumors include cystic lesions, such as epidermoid cysts, which can also present as well-circumscribed masses in the IRF, or more aggressive neoplasms like sarcomas. Therefore, imaging, combined with clinical judgment, plays a pivotal role in the management of these patients.

In this case, the benign nature of the lipomatous tumor led to a favorable outcome with minimal morbidity. The cosmetic outcomes were also satisfactory owing to the use of the posterior approach, which minimizes visible scarring and preserves the function of surrounding structures. This case underscores the importance of a multidisciplinary approach involving radiologists, surgeons, and pathologists to ensure accurate diagnosis and optimal treatment of IRF tumors (Figure 2) [5].

This case highlights the rarity of IRF lipomas and the importance of MRI for both diagnosis and surgical planning. Surgical resection remains the mainstay of treatment for symptomatic tumors, with a low risk of recurrence if complete excision is achieved. Long-term follow-up is necessary to ensure the absence of recurrence, especially in tumors with malignant potential. Although IRF tumors are rare, this report adds to the growing body of literature on the presentation, diagnosis, and management of lipomatous tumors in this anatomically complex region.

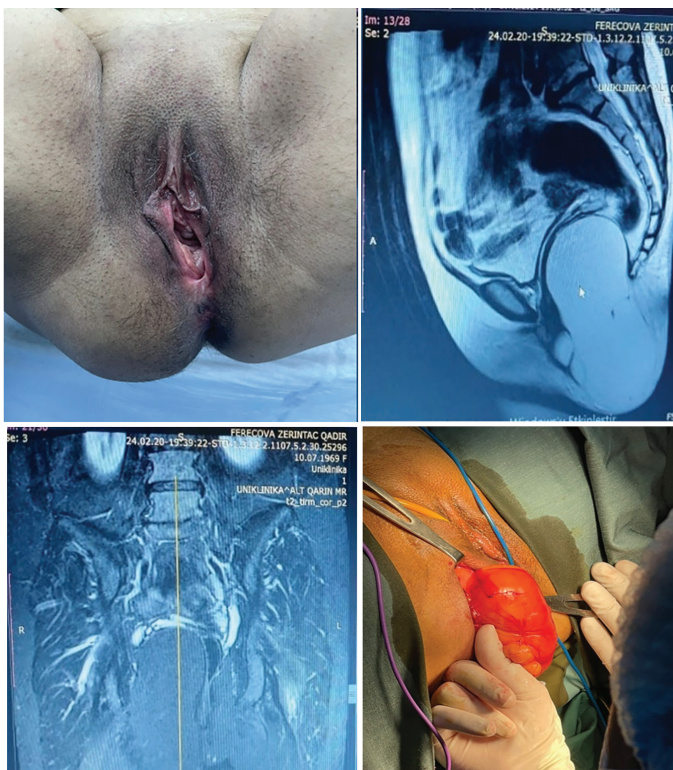


Figure 1. Preoperative examination and operative imaging



Figure 2. Surgical material: Lipoma

Ethics

Informed Consent: Informed consent was obtained from the patient.

Footnotes

Authorship Contributions

Surgical and Medical Practices: D.K., K.G., Concept: D.K., K.G., Design: D.K., K.G., Data Collection or Processing: K.G., Analysis or Interpretation: D.K., K.G., Literature Search: K.G., Writing: D.K.

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