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FIBROBLASTOMA AT THE SACROCOCCYGEAL REGION MASQUERADING AS SACROCOCCYGEAL TUMOUR IN A GIRL: A RARE CASE REPORT

Paediatrics Surgery

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ABSTRACT

Introduction: The sacral mass in infancy can be sacrococcygeal teratoma (SCT), meningocele, myelomeningocele, rectal abscess, lymphangioma, hemangioma, lipoma, perineal cyst. This case report describes the presentation, clinical findings, imaging characteristics and treatment of a benign lipomatous lesion in the sacrococcygeal region of a 1.5-year-old girl mimicking SCT. **Case Report:** The patient presented with a gradually increasing swelling over the sacral region, primarily located towards the left buttock. Local examination revealed a firm, immobile mass, measuring approximately 10 * 10 cm with no signs of inflammation. Imaging reported the lump as lipomatous lesion. Tumor markers were normal. The mass was excised with primary skin closure. The patient was discharged on the fifth post-operative day with minimal wound infection and flap necrosis. There was complete healing and skin closure in two months, following dressings and debridement. **Conclusion:** Fibrolipoma is a rare variant of lipoma, also extremely rare in infancy. Due to the similarity of the clinical pictures with sacrococcygeal teratoma, there was diagnostic dilemma. The histopathological examination of the excised tissue is the gold standard for diagnosis. The prognosis of fibrolipoma is excellent and recurrence is rare unlike sacrococcygeal teratoma.

KEYWORDS

rare case report; sacral Fibrolipoma; sacrococcygeal teratoma; Teratoma, Pediatric Tumor

INTRODUCTION

Fibrolipoma is an extremely rare subtype of lipomas from connective tissue tumors composed of mature adipocytes and abundant fibrous tissues, well separated from surrounding tissues, which are commonly benign[1] and usually occur in adults[2].

Sacral Fibrolipoma in infants is extremely rare and not well reported in the literature.

This case presents a unique instance of a lipomatous lesion located in the sacrococcygeal region of a pediatric patient. Although such lesions are generally benign, their size and anatomical location can cause symptoms and necessitate further evaluation and management. This manuscript was prepared following the CARE guidelines.

Case Presentation

A 1.5-year-old girl presented with a swelling over the sacral region, which had progressively increased in size since birth. Local examination revealed a firm, immobile mass measuring approximately 10 * 10 cm. There were no signs of inflammation. The mass was palpable in both gluteal regions primarily located towards the left buttock [Figure 1]. The patient did not exhibit any associated symptoms such as pain, discharge, or restriction of movement. Digital rectal examination revealed no rectal mucosa involvement.

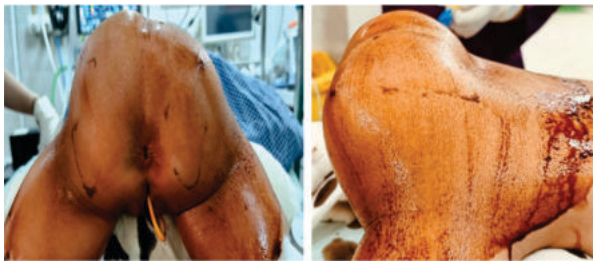

Figure 1 Showing The Sacro-coccygeal Mass

Diagnostic Evaluation

To assess the characteristics and anatomical relationships of the sacrococcygeal mass, further investigations were performed.

A CECT (contrast-enhanced computed tomography) of the gluteal region was conducted. The imaging study demonstrated a midline large heterogeneous hypodense lesion of fat attenuation in the subcutaneous and intermuscular plane of the sacrococcygeal region, measuring approximately 7 * 8.5 cm. The mass was found to be laterally displacing the lower rectum and anal canal.

To gain more detailed information about the lesion and its effect on surrounding structures, MRI pelvis [Figure 2] was done which revealed a benign lipomatous lesion along the subcutaneous plane of the paramidline bilateral gluteal region, predominantly related to the distal coccygeal vertebra. The lesion appeared as a large, heterogeneous hypodense mass with multiple minimal internal septations. No obvious osseous abnormality and no communication with spinal canal was found.

Serum beta-human chorionic gonadotropin (HCG) & Alpha feta protein (AFP) were found to be normal.

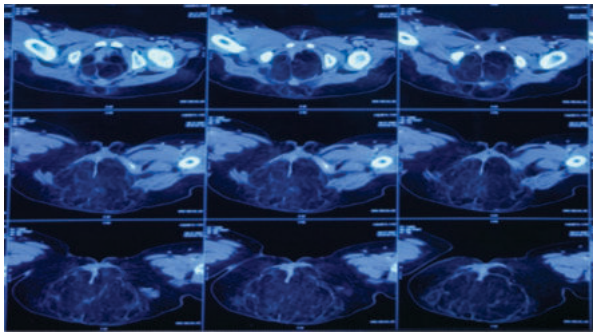

Figure 2 Showing The Mri Image Of The Mass

Pre-operative Core Biopsy

The core biopsy obtained from the sacrococcygeal lesion revealed lobules of mature adipose tissue, indicating the presence of benign lipomatous tissue. Additionally, a small nest of immature mesenchyme was observed, which is a common finding in fibrolipoma. Importantly, no evidence of malignancy was identified on histopathological detailed examination.

Intra-operative Findings

During the surgical procedure, an approximately 9 * 11 * 7.5 cm firm, variegated irregular mass was encountered in the bilateral gluteal region (FIGURE 3). The mass exhibited a multilobulated appearance and was composed of fibrocollagenous and fibroadipose tissue. Surrounding para rectal muscles were observed, and the gluteal muscles appeared laterally displaced with distorted anatomy. Importantly, no intraoperative rectal injury was noted. The patient was positioned in a jackknife position to facilitate the procedure. (FIGURE 3)

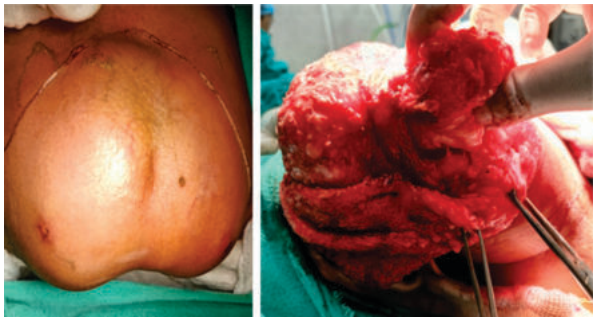

Figure 3 Showing The Mass Intra-operative.

Excision Biopsy Report

The biopsy report revealed the presence of fibrocollagenous and fibroadipose tissue within the mass. Notably, the report did not identify any elements suggestive of teratoma. This finding indicated that the initial presentation of the case as a sacrococcygeal teratoma was misleading. The absence of teratomatous elements in the biopsy raises the need for differentiation from malignancy.

Post Operative Course

On post-op day 4, there was necrosis of part of skin flap, followed by wound dehiscence & infection. After antibiotics along with regular wound debridement dressing, there was complete healing of the wound (FIGURE 4).

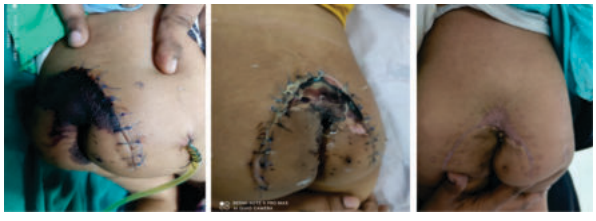

Figure 4 Showing Post-operative Course.

Discussion

Lipoma is a benign tumor composed of mature adipocytes. Lipomas are sub-classified into conventional lipoma, fibrolipoma, angiolipoma, fusiform cell lipoma, myolipoma and pleomorphic lipoma[3]. A fibrolipoma is an extremely rare subtype. It characteristically grows in a well-encapsulated fashion without tissue infiltration thus differentiating it from liposarcoma [4]. Reported cases of fibrolipoma in recent years show that they can invade several parts of the body, including the face, lips, throat, trachea, esophagus, spermatic cord, abdominal cavity, and other locations [(5-17).] However, to the best of our knowledge, there have been no reports of occurrence of the same in sacral region of infants mimicking sacro-coccygeal teratoma. There is no definite etiology of fibrolipoma. Some authors believe that it is congenital, caused by endocrine disorders, while others believe that it is a product of degenerative fibrous tumors, or is caused by the maturation of lipoblastoma [(17)]. Its treatment is complete surgical resection. In our case, the patient had no systemic disease or history of trauma, as well as no family history of fibrolipoma. parents brought the child to the hospital with suspicion of malignancy. Because of its giant size and location, the case was first diagnosed as sacrococcygeal teratoma. Sometimes, it is difficult to differentiate from liposarcoma; however, necrotic cystic change or calcification in the tumor is helpful for making the differential diagnosis. Ultrasound-guided core biopsy, tumor markers and excision biopsy are a reliable diagnostic method of identification.

The discrepancy between the preoperative suspicion of a sacrococcygeal teratoma and the biopsy findings highlighting fibroadipose tissue poses a diagnostic challenge. In cases like these, accurate differentiation from malignancy becomes crucial. Further investigation and consultation with specialists may be necessary to determine the appropriate course of action and management for the patient.

CONCLUSION

Fibrolipoma is one of the rare variants of the lipoma. In the present case, sacral fibrolipoma was masquerading as a sacro-coccygeal teratoma. Due to the similarity of the clinical pictures with sacrococcygeal teratoma, the histopathological examination of the excised tissue is the gold standard for diagnosis. The prognosis of fibrolipoma is excellent and recurrence is rare. Even though benign, due to its large size and progressive increase in size, excision is mandatory and is a surgical challenge.

Informed Consent: Informed consent was obtained from the parent.

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