

Bilateral symmetrical buttock masses in a 52 year old male

Abhishek Sharma¹, Malvika Misra, Anamika Sharma

¹Department of Plastic Surgery, Gimcare Hospital, Kerala, India

Abstract

A 52-year-old man presents to us with 10 yr history of buttock masses. The masses were mildly painful while sitting. The pain was intermittent, dull aching but did not bother him at night. He refused any history of trauma to the area or sexual abuse. The rest of his history was insignificant. A Magnetic resonance imaging [MRI] scan was done and showed a bilateral symmetrical buttock masses in the posterior subcutaneous tissue of buttock. It is a rare case of bilateral symmetrical lipomatosis of posterior buttock of unknown aetiology.

Keywords: Lipomatosis; Bilateral symmetrical buttock lumps; Painful lipomatosis; Idiopathic lipomatosis buttocks.

Introduction

Lipomatosis are benign proliferations of adipose tissue [2, 11], often with typical distribution patterns, which usually occur without clear causes [1, 2]. In contrast to circumscribed lipomas, lipomatosis develops diffusely and symmetrically and are not surrounded by a fibrous pseudo capsule.[1,2] There are some variants of lipoma described according to their locations. Intermuscular lipoma, Intramuscular lipoma, Parosteal, periosteal lipoma. Lipoma arborescens, synovial lipomatosis[2,8]. It is not clear what causes them [2,8]. Around 1 in 100 people [1%] will develop a lipoma [2]. Middle-aged men and women tend to get them more [2] Some people develop them because of an inherited faulty gene [11] This condition is known as familial multiple lipomatosis and is not common [11] People with familial multiple lipomatosis will develop more than one lipoma[11]. Lipomas often show up after an injury[15]. However, it is unclear whether the trauma causes a lipoma to form, or if the lipoma is discovered simply as a result of medical attention to that area of the body [15] They usually appear as small, soft lumps [1] They are typically less than 2 inches wide [1] You could have more than one[1]. When you press on the lipoma, it may feel doughy[1]. It will move easily with finger pressure[1] They don't normally hurt, but they can cause pain if they bump against nearby nerves or have blood vessels running through them [1,7] Lipomas are mostly harmless and are only treated or excised if they cause pain due to their location and/or impact an organ's function[1,7]. However, some patients choose to have these masses removed for cosmetic reasons, as they can often be seen through the skin as they lie subcutaneously [2].

CASE PRESENTATION:

A 52-year-old man was presented to us with 10 year history of buttock masses. Initially they were small, gradually increased in size. The masses were painful while sitting. The pain was intermittent, dull aching but did not bother him at night. He refused any history of trauma to the area or any sexual abuse. The rest of his history was not significant. On physical examination, a soft, mildly tender uniform mass was palpated on

each posterior buttock. The masses were mobile in relation to bone and underlying muscle. Soft tissue swellings were bilateral symmetrical and prominent poster-medially. There was mild erythema and warmth over the area. His neurologic examination in lower extremity was normal. His gait and rest of the musculoskeletal examination was normal. A Magnetic resonance imaging [MRI] scan was done; it suggested bilateral symmetrical uniform buttock masses in the posterior subcutaneous tissue. Biopsy was conducted showed benign tissue, no evidence of malignancy.

DISCUSSION AND TREATMENT

Neither we have seen a similar case before nor found an article related to similar problem. Here we discuss some closely related illnesses which could be the differential diagnosis. A lipoma is a slow-growing fatty lump that is most often situated between your skin and the underlying muscle layer [2]. Lipomas can sometimes, though rare, be associated with certain disorders such as multiple hereditary lipomatosis [2, 11], Gardner syndrome, adiposis dolorosa, and Madelung disease [11, 8]. Some unconventional forms of lipomas include the following: angioliipoma, chondroid lipoma, lipoblastoma, myoliipoma, pleomorphic lipoma/spindle cell lipoma, intramuscular and intermuscular lipoma, lipomatosis of nerve, lipoma of the tendon sheath and joint, lipoma arborescens, multiple symmetric lipomatosis, diffuse lipomatosis, adiposis dolorosa, and hibernoma[8,9]. What causes lipoma? Physical trauma? However, it is unclear whether the trauma causes a lipoma or if the lipoma is discovered simply as a result of medical attention to that area of the body [1, 15]. Lipomas are the most common benign tumors of mesenchymal origin.[8,13] Benign lipomatous tumors have been subclassified according to their histologic features and

***Corresponding author:** Dr. Abhishek Sharma, Senior consultant Plastic Surgeon, Gimcare Hospital, Kerala, India.

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growth patterns into classic lipomas, fibrolipoma, angioliipoma, infiltrating lipomas, intramuscular lipomas, hibernoma, pleomorphic lipomas, lipoblastomatosis, and diffuse lipoblastomatosis. Infiltrating lipomatosis [8, 9 and 13]. But in our case bilateral symmetrical presentation goes against the simple lipoma infiltrating lipomatosis is classified as a subgroup of lipoma [8]. It occurs after the third decade of life and involves subcutaneous tissue, muscles, and bones [9]. Medications are used to correct associated metabolic conditions, surgery or liposuction to remove the lipomas [12]. Diffuse lipomatosis is a classic example of an infiltrating fatty tumour [17,18]. It is a rare entity characterized by infiltration of adult-type adipose tissue into skin, subcutaneous tissue, and muscle [18]. It usually involves a large portion of an extremity [18]. The possible mechanisms for lipomatous change that have been proposed are trauma [1,8], chronic irradiation, muscular metaplasia, degenerative processes with fatty transformation, multipotent cells of embryonic origin under the influence of hormones, congenital cytomegalovirus infection, and alteration in chromosome [2,1, 7,11]. In our case we suspected chronic irritation by wrong sitting or support to buttocks may be the cause of induction of lipomatosis and formation of buttock lumps. Imaging evaluation of soft tissue tumors has undergone a dramatic evolution with the advent of CT and MRI [19] which are useful for definite differential diagnosis [19]. Classic lipoma have CT and MRI signal intensity characteristics similar to those of subcutaneous fat [19]. On CT scans, lipoma appear as homogenous hypo attenuated masses [apart from thin and wispy soft tissue attenuated septa, although on occasion, septa may be thick and nodular [19]. They have a CT number ranging from -60 to -120 HU and do not typically show contrast enhancement [19]. On MR images, fat has typical signal intensity. On T1-weighted images, lipomas tend to have high signal intensity that diminishes with progressive T2 weighting [19]. MRI provides better tumour delineation because it has superior soft tissue contrast resolution and clear definition of the location and longitudinal extent of the mass [19] that is why we suggested MRI scan. It delineated lumps as well as defined lipomatous lesion precisely. Ultrasonography [USG] may show adipose tissue, but cannot delineate the real extent of the lesion. [19] In our case contrast to circumscribed lipomas, lipomatosis develops diffusely and symmetrically and are not surrounded by a fibrous pseudo capsule.



Figure 1: Bilateral symmetrical buttock masses

Adiposis dolorosa is a condition characterized by painful folds of fatty [adipose] tissue [3] or the growth of multiple noncancerous [benign] fatty tumours called lipomas [3, 7]. This condition occurs most often in women who are overweight or obese [3] and signs and symptoms typically appear between weages 35 and 50 [3,7]. The pathogenesis of lipomatosis dolorosa has not yet been clarified [3]. Whether delayed lymph drainage in dilated lymphatic vessels plays a role is speculative [7]. The diagnosis of Dercum

disease is based on two main symptoms: Localized obesity and spontaneous or mildly stimulated aches and pains in the fatty tissue [3,7]. This diagnosis was very close to our case but localized obesity was not there.

Benign symmetrical lipomatosis [BSL; multiple names including multiple symmetric lipomatosis, Madelung disease, Launois-Bensaude syndrome, symmetrical adenolipomatosis [5] is a benign and most common form is benign symmetric lipomatosis [5] of which four types are distinguished based on the distribution pattern of hyperplastic adipose tissue [5]. The etiology and pathogenesis of the disease are still largely unknown [5] although some forms appear to have a hereditary basis [5] or to be associated with increased alcohol consumption [5]. In some cases, mitochondrial dysfunctions have been detected [5]. Lipomatosis may be solitary [9] but may also be associated with other symptoms or illnesses comorbidity [9]. In our case problem was confined to buttocks whereas in BSL lipomatosis confined to cervical region and upper parts of body.

We also suspected Panniculitis. It refers to a group of conditions that involve inflammation of subcutaneous fat [16]. Despite having very diverse causes, most forms of panniculitis have the same clinical appearance [16]. Effective drug therapies are not known, but surgical procedures can alleviate the symptoms [16]. In our case inflammatory nodules or plaques in the skin were not there which are common in panniculitis.

A biopsy is almost always needed to establish diagnosis and is was done in our case. In gross appearance it suggested brown lesion and yellow-colour mass, irregular in outline, and soft to firm in consistency. There was variability in size of lipomas. The histopathologic examination shows non-encapsulated proliferation of mature adipose tissue surrounded by an extensive capillary network with diffuse infiltration in adjacent soft tissue and presence of fibrous tissue with various nerve bundles and thickened vessels. No evidence of lipoblasts or malignancy seen. Suggestive of infiltrating lipomatosis.

In BSL, treatment is primarily for aesthetic reasons [5], and can vary as per the age of the patient and the rate of recurrence. Although the tumors are benign, the rate of recurrence is very high after surgical excision. [5, 14]. The treatment modalities available are liposuction and surgical excision [5]. The condition has a high rate of recurrence with surgery done for cosmetic purpose [5].

In adiposis dolorosa accompanying depression must be detected and treated [4, 3]. Surgical removal of the painful fatty tissue can lead to significant alleviation of the symptoms of lipomatosis dolorosa [3]. However, recurrences are frequent [3]. Depression was not there in our case so we did not prescribe any antidepressant.

Small lipomas [less than 4 cm] can be removed through small incisions [10] and scarring is not usually a significant concern. Research conducted [6, 10] also concluded that open surgery is still a better option for removing giant lipomas [greater than 10 cm] compared with lipoma removal by suction-assisted lipectomy through small incisions as it allows better judgment, prevents recurrences, and avoids damage to the surrounding tissues [10, 12]. In our case both buttocks had bilateral symmetrical bigger sized lipomatosis so we had planned surgery over liposuction.

REFERENCES

1. Charifa A, Azmat CE, Badri T. StatPearls [Internet]. StatPearls Publishing; Treasure Island (FL): Sep 21, 2020. Lipoma Pathology
2. Weiss SW. Lipomatous tumors. *Monogr Pathol.* 1996;38:207-39
3. Silistreli OK, Durmuş EU, Ulusal BG, Oztan Y, Görgü M. What should be the treatment modality in giant cutaneous lipomas? Review of the literature and report of 4 cases. *Br J Plast Surg.* 2005 Apr;58(3):394-8
4. Chrisinger JSA. Update on Lipomatous Tumors with Emphasis on Emerging Entities, Unusual Anatomic Sites, and Variant Histologic Patterns. *Surg Pathol Clin.* 2019 Mar;12(1):21-33
5. Salam, GA. Lipoma excision. *Am Fam Physician* 2002. 65 (5):901–904
6. Weiss SW. Lipomatous tumors. *Monogr Pathol.* 1996;38:207-39. [Pub cases. *Br J Plast Surg.* 2005 Apr;58(3):394-8
7. S. Ramos, S. Pinheiro, C. Diogo, L. Cabral, and C. Cruzeiro, "Madelung disease: a not-so-rare disorder," *Annals of Plastic Surgery*, vol. 64, no. 1, pp. 122–124, 2010
8. Aust MC, Spies M, Kall S, Jokuszies A, Gohritz A, Vogt P. Posttraumatic lipoma: fact or fiction? *Skinmed.* 2007 Nov-Dec;6(6):266-70
9. White WL, Wieselthier JS, Hitchcock MG. Panniculitis: recent developments and observations. *Semin Cutan Med Surg.* 1996; 15: 278-299
10. Coode P.E., McGuinness F.E., Rawas M.M., Griffith Diffuse lipomatosis involving the thoracic and abdominal wall: CT features. *J Comput Assist Tomogr.* 1991; 15: 341-343
11. Regan JM, Bilke WH, Broders AC (1946) Infiltrating benign lipomas of extremities. *West J Surg* 54: 87–93
12. Kransdorf MJ, Moser RP Jr., Meis JM, Meyer CA (1991) Fat-containing soft-tissue masses of the extremities. *Radiographics* 11, 81–106