

Calcifying Bursitis ischioglutealis: A Case report

Alexander Schuh^{1,2}, Chirag Thonse Narayan⁴, Ralph Schuh², Wolfgang Hönle³,

ABSTRACT

Introduction: The ischiogluteal bursa is an inconstant anatomical finding located between the ischial tuberosity and the gluteus maximus. Ischiogluteal bursitis is a rare disorder.

Case Report: We report the case of a 43-year-old female patient with bilateral calcifying ischiogluteal bursitis. The patient had no relevant medical history of systemic illness or major trauma to the buttock. After aspiration of both ischiogluteal bursitis which delivered calcareous deposits and instillation of a mixture of 1cc betamethasone (6 mg) and 4 cc of 1% lidocaine the patient was out of any complaints.

Conclusion: Calcifying ischiogluteal bursitis is a rare entity but easily diagnosed on radiographs. Aspiration and local steroid instillation give good relief from symptoms.

Keywords: calcifying ischiogluteal bursitis, bilateral, aspiration, treatment

INTRODUCTION

Pain in the gluteal region may be due to a number of causes including sciatica, lumbar disc degeneration, piriformis syndrome, sacroiliitis, and ischial bursitis [1]. Ischiogluteal bursitis is a rare disorder [2-4]. The

ischiogluteal bursa is an inconstant anatomical finding located between the ischial tuberosity and the gluteus maximus. Especially in cancer patients, the appearance of ischiogluteal bursitis can be confusing in its clinical and radiological presentation [3]. Ischiogluteal bursitis is a disorder characterized by pain over the center of the buttock and along the hamstring muscles of the leg [5]. The most successful treatment of sterile bursitis is aspiration and filling of the bursal sac with a mixture of depot steroids and local analgesics [5,6]. We report the case of a patient with bilateral calcifying ischiogluteal bursitis and calcifying tendinitis of the left supraspinatus tendon.

CASE REPORT

A 43-year-old woman presented with a 1 year history of bilateral buttock pain and a history of 3 months recurrent left shoulder pain. The pain gradually increased, and the patient complained of pain on sitting. The patient subsequently noticed a painful swelling in the left and right buttock. The patient had



Figure 1: Anteroposterior radiograph of the pelvis shows bilateral calcifying bursitis ischioglutealis.

¹Research Unit Orthopedics and General Surgery, Neumarkt Clinic, 92318 Neumarkt, Germany

²Orth.Med Weiden, 92637 Weiden, Germany

³Department of Orthopedic Surgery, Neumarkt Clinic, 92318 Neumarkt, Germany

⁴Indian Orthopaedic Research Group

Address of correspondence:

PD Dr. med. habil. Alexander Schuh
Head of Research Unit

Teaching Hospital of the University of Erlangen- Nuremberg
Nürnberg Str. 12, 92318 Neumarkt i.d. OPf. Germany

Tel: +49-9181-420-3500

Fax: +49-9181-420-3503

E-mail: Alexander.Schuh@klinikum.neumarkt.de,
drpoojari@yahoo.co.in

no relevant medical history of systemic illness or major trauma to the buttock. Physical examination revealed swelling and tenderness of both ischial tuberosities. Neurologic examinations were normal. Left shoulder showed full range of motion but positive impingement tests. Radiographs of the pelvis and the left shoulder revealed a calcifying mass in the region of both ischial tuberosities (Fig. 1) and the left supraspinatus tendon (Fig. 2). Based on these findings a diagnosis of bilateral calcifying ischiogluteal bursitis and calcifying tendinitis of the left supraspinatus tendon was suggested. As the patient was out of any complaints in respect to the left shoulder no infiltration or aspiration of the left shoulder was performed at that time. Aspiration of both ischiogluteal bursitis delivered calcareous deposits. After that a mixture of 1cc betamethasone (6 mg) and 4 cc of 1% lidocaine was installed. At 2 months follow up the patient was completely relieved of his symptoms with no recurrence

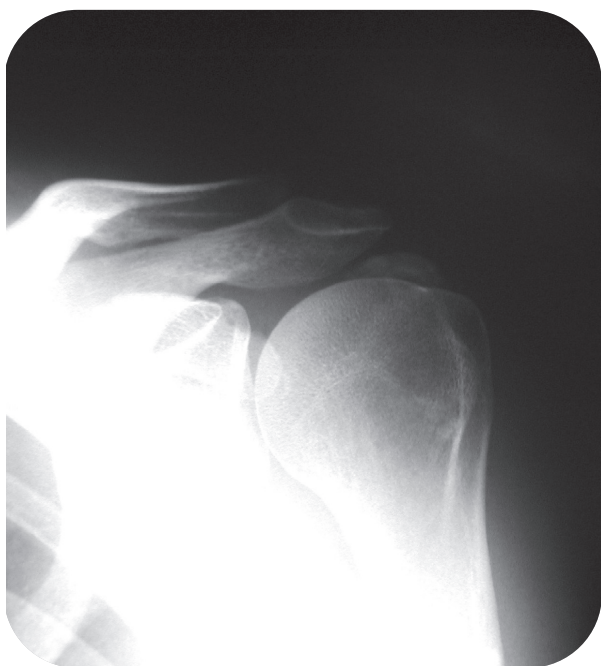


Figure 2: Anteroposterior radiograph of the left shoulder shows calcifying tendinitis of the supraspinatus tendon.

DISCUSSION

There are two types of bursa in the human body: constant and adventitial. Adventitial bursa forms later in life through a process of myxoid degeneration of fibrous tissue in response to stress at the site of friction between adjacent structures. Adventitial bursa does not have lining cells. Ischiogluteal bursa is an

adventitial bursa found between the ischial tuberosity and the gluteus maximus [2]. Iliopectineal bursitis [7] and ischiogluteal bursitis is a rare disorder [1-14]. It forms through a degenerative process of soft tissues in response to irritation or intermittent pressure on the ischial tuberosity [2]. Ischiogluteal bursitis has been described as a manifestation of gout. Bursitis in the ischiogluteal region has also been reported as a disorder appearing frequently in weavers, because of irritation or intermittent pressure upon the ischial tuberosities from prolonged sitting; it was referred to as “weaver’s bottom” [2,3,15]. Patients with ischiogluteal bursitis complain of mild to severe pain in the buttock, radiating to the thigh or lower leg. The pain may be present at night and may prevent sleeping. The pain is more severe with sitting or lying on the back than standing. Pain is exacerbated by bending forward or standing on tiptoes. On a careful physical examination, ischial bursitis appears as a painful and swollen area over the ischial tuberosity associated with inflammatory changes of increased skin temperature and the redness in the buttock [1]. On examination, pain with straight leg raising is often present, and a Patrick test can also be positive. On rectal examination, a tender bulge may be occasionally felt on the lateral rectal wall [2]. Sonography is valuable in the evaluation of superficially located soft tissue lesions and the detection of various kinds of bursitis [1,8]. Computed tomography and magnetic resonance imaging have also been used to detect bursitis of the extremities [1,2,8]. Recently Nguyen et al. presented the incidental detection of a large and asymptomatic ischiogluteal bursitis during F-18 FDG PET/CT staging for head and neck cancer [5]. CT scan and MRI features of bursitis located in other anatomic sites are those of a cystic mass with a localized fluid collection, surrounded by a thin wall. It may have internal septa and nodules [2]. The diagnosis of ischiogluteal bursitis is not difficult by its clinical features and with the use of MRI. True neoplasms usually have solid soft tissue components, but ischiogluteal bursitis, the MRI features have some variation, contains only fluid and soft tissue components are limited to the bursal wall. The diagnosis of ischiogluteal bursitis is not difficult with sonography, CT, or MR imaging, because of its typical location and the fluid content [1,2,8]. In our case we found an additional calcifying tendinitis of the left shoulder. In respect to this finding we suggested bilateral ischiogluteal bursitis and saw no need for further diagnostic interventions. Aspiration of both ischiogluteal bursitis delivered calcareous deposits and confirmed our diagnosis. Many causes of bursitis have been described, the most common of

which are trauma (hemorrhagic bursitis), inflammation (e.g. rheumatoid arthritis and spondyloarthropathies) infection and crystal deposition. Our case is the first one of calcifying ischiogluteal bursitis with similar radiologic findings of the shoulder. Recently Yoshida et al. published a case of rice bodies in ischiogluteal bursitis [4]. Crystal deposition as a cause of bursitis can be further categorized by the type of crystals that can be identified when synovial fluid is examined with polarizing light microscopy. There are three basic crystal-induced arthropathies: monosodium urate crystal deposition disease (gout); calcium pyrophosphate dihydrate (CPPD) crystal deposition disease (pseudogout and other clinical presentation); and calcium hydroxy-apatite (HA) crystal deposition disease [13]. We fully agree that biopsy or surgical excision is sometimes necessary to establish the diagnosis of ischiogluteal bursitis and to provide adequate treatment [13].

CLINICAL MESSAGE:

Calcifying ischiogluteal bursitis is a rare entity but easily diagnosed on radiographs. Aspiration and local steroid instillation give good relief from symptoms.

REFERENCES:

1. Kim SM, Shin MJ, Kim KS, Ahn JM, Cho KH, Chang JS, Lee SH, Chhem RK. Imaging features of ischial bursitis with an emphasis on ultrasonography. *Skeletal Radiol.* 2002 Nov;31(11):631-6.
2. Hitora T, Kawaguchi Y, Mori M, Imaizumi Y, Akisue T, Sasaki K, Yamada E, Yamamoto T. Ischiogluteal bursitis: a report of three cases with MR findings. *Rheumatol Int.* 2009 Feb;29(4):455-8.
3. Völk M, Gmeinwieser J, Hanika H, Manke C, Strotzer M. Ischiogluteal bursitis mimicking soft-tissue metastasis from a renal cell carcinoma. *Eur Radiol.* 1998;8(7):1140-1
4. Yoshida S, Shidoh M, Imai K, Imai A, Konishi Y, Kon S. Rice bodies in ischiogluteal bursitis. *Postgrad Med J.* 2003 Apr;79(930):220-1.
5. Nguyen BD, Roarke MC. F-18 FDG PET/CT incidental finding of large ischiogluteal bursitis. *Clin Nucl Med.* 2007 Jul;32(7):535-7.
6. Lubojacký J. [Calcareous tendinitis of the shoulder. Treatment by needling]. *Acta Chir Orthop Traumatol Cech.* 2009 Jun;76(3):225-31.
7. Koudela K Jr, Koudelová J, Koudela K Sr, Kunesová M. [Bursitis iliopsoas]. *Acta Chir Orthop Traumatol Cech.* 2008 Oct;75(5):347-54.
8. Akisue T, Yamamoto T, Marui T, Hitora T, Nagira K, Mihune Y, Kurosaka M, Fujita I, Matsumoto K. Ischiogluteal bursitis: multimodality imaging findings. *Clin Orthop Relat Res.* 2003 Jan;(406):214-7.
9. Broadhurst N. Musculoskeletal medicine tip. Ischial bursitis. *Aust Fam Physician.* 1995 Jun;24(6):1121.
10. Chafetz N, Genant HK, Hoaglund FT. Ischiogluteal tuberculous bursitis with progressive bony destruction. *J Can Assoc Radiol.* 1982 Jun;33(2):119-20.
11. Cho KH, Lee SM, Lee YH, Suh KJ, Kim SM, Shin MJ, Jang HW. Non-infectious ischiogluteal bursitis: MRI findings. *Korean J Radiol.* 2004 Oct-Dec;5(4):280-6.
12. Mills GM, Baethge BA. Ischiogluteal bursitis in cancer patients: an infrequently recognized cause of pain. *Am J Clin Oncol.* 1993 Jun;16(3):229-31.
13. Van Mieghem IM, Boets A, Sciôt R, Van Breuseghem I. Ischiogluteal bursitis: an uncommon type of bursitis. *Skeletal Radiol.* 2004 Jul;33(7):413-6.
14. Weber CA, Calabro JJ. Persistent low back pain and ischiogluteal bursitis. *JAMA.* 1986 Jun 20;255(23):3251.
15. Anderson, C.R.: Weaver's bottom. *JAMA* 1974 Apr 29;228(5):565-6.

Conflict of Interest : NONE

Source of Funding : NONE