

# Postpartum Osteitis Pubis Following Spontaneous Vaginal Delivery: A Rare Cause of Pubalgia

Nikhil Aravind Khadabadi\*, Ravi Jatti, Babu B Putti and Dinesh R Kale

Jawaharlal Nehru Medical College, Belgaum, Karnataka, India

## Abstract

**Introduction:** Osteitis pubis has been known as a noninfectious inflammation of the pubis symphysis. It is poorly understood and is rarely seen in the immediate postpartum period following spontaneous delivery.

**Case report:** A 25 year old primigravida had a spontaneous delivery at 37 weeks of gestation. 5 days following the delivery she complained of dull aching pain the in lower abdominal and pubic region. Pain was continuous and increased on activity and subsided on rest. Pain increased in severity and the she consulted local doctors who treated her with analgesics and antibiotics. The Pain did not subside and she presented to us a week following the onset of symptoms. A plain radiography of the pelvis was done which showed irregular bony lesion at the level of pubic symphysis. MRI scan of the pelvis was done and Osteitis pubis was diagnosed. She was managed with bed rest, anti inflammatory and physiotherapy. Pain subsided over a period of ten days and patient was discharged subsequently. She is engaging in all her activities of daily living with no complaints presently.

**Discussion:** Osteitis Pubis is a rapidly progressive, nonsuppurative osteonecrosis of the symphysis pubis is frequently confused with other entities. Because the prognosis for recovery is invariably good, acute intervention is directed at relieving pain by immobility and anti-inflammatory agents. We present a rarely described case of osteitis pubis occurring in the postpartum period following spontaneous delivery.

**Keywords:** Osteitis pubis; Postpartum; Pubalgia

## Introduction

Osteitis pubis represents a non-infectious inflammation of the pubic symphysis. Although, the disease commonly affects young athletic patients, it is also associated with urologic procedures, obstetrical and gynaecological procedures [1,2]. Pain is usually localized over the pubic symphysis and radiates to the groin, medial thigh or the abdomen. Differentiating with infective pathology of the osteitis pubis mandates special attention. Occurrence of osteitis pubis following spontaneous vaginal delivery during the postpartum period is rare and few cases have been described in literature [3,4]. We present such a case to highlight occurrence of this condition in women presenting with pubic pain following normal deliveries with no history of inciting trauma to the pubic symphysis.

## Case Report

A 25 year old primigravida had a spontaneous vaginal delivery at 37 weeks of live baby boy weighing 2.8 kg. 5 days postpartum she started complaining of pain in the lower abdominal and pubic region. Pain was dull aching, aggravated on standing and walking and subsided on lying down. Pain eventually became continuous and increased in severity. Patient did not complain of fever or any other complaints. She was treated with analgesics and antibiotics with a presumptive diagnosis of endometritis by local doctors. Pain did not subside and she was presented to us a ten days after the onset of symptoms with worsening in the severity of pain with pain radiating to the inner aspect of both thighs.

Her clinical examination revealed tenderness in the lower abdominal and in the region of pubic symphysis. Her gynaecological examination revealed normal lochia, well contracted uterus and absence of adnexal tenderness. Her haemoglobin was found to be 9.3 gm%, white blood cell count was normal and her ESR was within normal limits on haematological investigation. Plain radiography of the pelvis showed 8 mm widening, subchondral erosive change, irregularity and sclerosis of the pubic symphysis (Figure 1). On further evaluation with a MRI scan of the pelvis showed parasymphyseal bone

marrow edema (Figures 2 and 3). In view of these findings osteitis pubis was diagnosed and infection was ruled out. She was treated with antiinflammatory medications, immobilisation using pelvic binder and bed rest. Pain relieving physiotherapy modalities were also given. Pain was relieved using measures like cryotherapy and interferential therapy (Figures 4 and 5). Patient responded favourably to the treatment and pain subsided over duration of ten days. At 3 and 6 months follow up she was asymptomatic, no localised tenderness over symphysis pubis and was engaging in her routine activities with no complaints

## Discussion

Osteitis Pubis is a painfull, non infectious, inflammatory condition



Figure 1: Plain X rays of Pelvis with hip joints Antero Posterior view.

\*Corresponding author: Nikhil Aravind Khadabadi, Jawaharlal Nehru Medical College, Belgaum, Karnataka India, Tel: +91-0831-2471350; E-mail: [nik.khadabadi@gmail.com](mailto:nik.khadabadi@gmail.com)

Received April 25, 2014; Accepted July 23, 2014; Published July 25, 2014

**Citation:** Khadabadi NA, Jatti R, Putti BB, Kale DR (2014) Postpartum Osteitis Pubis Following Spontaneous Vaginal Delivery: A Rare Cause of Pubalgia. J Clin Case Rep 4: 388. doi:10.4172/2165-7920.1000388

**Copyright:** © 2014 Khadabadi NA, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

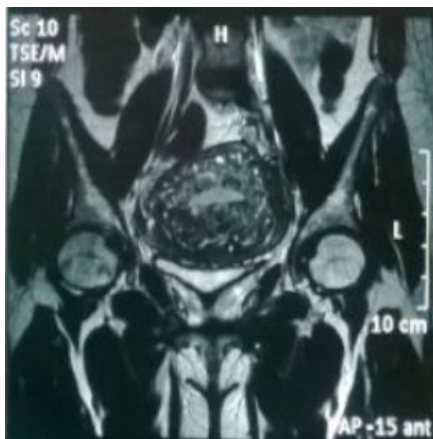


Figure 2: MRI Coronal T2 weighted image of pelvis.



Figure 3: MRI Coronal T2 weighted image of pelvis.



Figure 4: Pelvic Binder Application.

of the pubic symphysis and the surrounding structures. It is one of the most common disorders affecting the pubic symphysis [5]. It has been originally described in patients following suprapubic surgery for urological or gynaecological pathologic modalities and remains a well-known complication of invasive procedures of the pelvic area [6]. Although it represents a common cause of pain in athletes, particularly football players, it has often been reported after trauma, rheumatic disorders, pregnancy and parturition [7,8]. The disease usually affects young athletes and is characterized by excessive strains on the pubic bone due to rigorous demands of competitive sport [7].



Figure 5: Cryotherapy.

The pathogenesis of this condition is not clearly defined. In athletes it is known to arise due to muscle imbalance, pelvis instability and chronic overuse injury to bone and joint and also due to excessive strains on the pubic bones [7,9]. In non athletic individuals injury to the periosteum over the pubic bones has also been advocated as the inciting event [2]. Gonik et al. [4] and Scott et al. [10] in their study, announced a possible association between the disease and previous pregnancy [4,10,11]. A possible mechanism proposed by Mehin et al. [12] is that the hormone-induced ligamentous laxity may facilitate increased motion and impaction of the articular surfaces of the symphysis [11].

A high index of suspicion needs to be maintained to differentiate this condition from infective conditions of pubic symphysis such as pubic osteomyelitis. The symptoms of osteitis pubis usually arise abruptly occurring between 1-8 weeks after the initiating event and consist of pain in the pelvic region extending to the inner aspect of the thighs. Pain is exacerbated by specific movements and exercise. On examination waddling gait is usually present and tenderness over the pubic symphysis is elicited on palpation. Also abduction of the hip joints is restricted to adductor spasm and occasionally a click is audible at the pubic symphysis [2,3]. Diagnosis is established with the help of plain radiograms, bone scans, CT scans and Magnetic Resonance Imaging (MRI) may be required to assist in the differential diagnosis [11,13].

Osteitis pubis after spontaneous vaginal delivery in the postpartum period has been scarcely reported in literature. This is the third such case being reported. In the first reported case by Gonik et al. in their case report advocated use of anti inflammatory medications and immobilisation as treatment in their case which achieved favourable result. Jinan et al. in their case report with osteitis pubis two days following spontaneous vaginal delivery in a 30 year old female achieved good results with strict bed rest, anti inflammatory medication and prophylactic dose of low molecular weight heparin.

Conservative treatment is a mainstay of treatment for osteitis pubis, this was demonstrated by Kavroudakis E et al. have demonstrated in their case study on Eight non-athletic women with osteitis pubis who were treated with bed rest, non steroidal anti-inflammatory drugs and physical therapy. They concluded that for these patients surgery is rarely required and that conservative treatment represents a fair option for pain and limitation of everyday activity.

#### References

1. Vincent C (1993) Osteitis pubis. J Am Board Fam Pract 6: 492-496.
2. Lentz SS (1995) Osteitis pubis: a review. Obstet Gynecol Surv 50: 310-315.
3. Usta JA, Usta IM, Major S (2003) Osteitis pubis: an unusual postpartum presentation. Arch Gynecol Obstet 269: 77-78.

4. Gonik B, Stringer CA (1985) Postpartum osteitis pubis. *South Med J* 78: 213-214.
5. Abrams M, Sedlezky I, Stearns DB (1949) Osteitis pubis. *N Engl J Med* 240: 637-641.
6. Andrews SK, Carek PJ (1998) Osteitis pubis: a diagnosis for the family physician. *J Am Board Fam Pract* 11: 291-295.
7. Johnson R (2003) Osteitis pubis. *Curr Sports Med Rep* 2: 98-102.
8. Fricker PA, Taunton JE, Ammann W (1991) Osteitis pubis in athletes. Infection, inflammation or injury? *Sports Med* 12: 266-279.
9. Harris NH, Murray RO (1974) Lesions of the symphysis in athletes. *Br Med J* 4: 211-214.
10. Scott DL, Eastmond CJ, Wright V (1979) A comparative radiological study of the pubic symphysis in rheumatic disorders. *Ann Rheum Dis* 38: 529-534.
11. Zoga AC, Kavanagh EC, Omar IM, Morrison WB, Koulouris G, et al. (2008) Athletic pubalgia and the "sports hernia": MR imaging findings. *Radiology* 247: 797-807.
12. Mehin R, Meek R, O'Brien P, Blachut P (2006) Surgery for osteitis pubis. *Can J Surg* 49: 170-176.
13. Kavroudakis E, Karampinas PK, Evangelopoulos DS, Vlamis J (2011) Treatment of osteitis pubis in non-athlete female patients. *Open Orthop J* 5: 331-334.