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Dr. Nikhil Khadabadi
Department of Orthopaedics,
Jawahar Lal Nehru Medical
College, KLE University,
Belgaum, India

Dr. Ravi S Jatti
Department of Orthopaedics,
Jawahar Lal Nehru Medical
College, KLE University,
Belgaum, India

Dr. Dinesh R Kale
Department of Orthopaedics,
Jawahar Lal Nehru Medical
College, KLE University,
Belgaum, India

Dr. B B Putti
Department of Orthopaedics,
Jawahar Lal Nehru Medical
College, KLE University,
Belgaum, India

Correspondence
Dr. Nikhil Khadabadi
Department of Orthopaedics,
Jawahar Lal Nehru Medical
College, KLE University,
Belgaum, India

Postpartum osteitis pubis following spontaneous vaginal delivery: A rare cause of pubalgia

Nikhil Khadabadi, Ravi S Jatti, Dinesh R Kale, B B Putti

Abstract

Osteitis pubis is known as non infectious inflammation of the pubis symphysis. It is rarely seen in post partum period. We present a case of a 25 year old primigravida who had a spontaneous delivery at 37 weeks of gestation. Five days following the delivery she complained of dull aching pain the in lower abdominal and pubic region. Pain was continuous and gradually increased in severity. Plain radiography of pelvis 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 medication and physiotherapy. Pain subsided over a period of ten days and patient was discharged subsequently. She currently engages in all her activities of daily living with no complaints. This case highlights the presence of this rare condition during the post partum period and its management.

Keywords: Osteitis pubis, Post Partum, Pubalgia

1. 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 and after 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 post partum 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.

2. 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 post partum 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 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 8mm 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 (Figure 2 & 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 (Figure 4 & 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



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

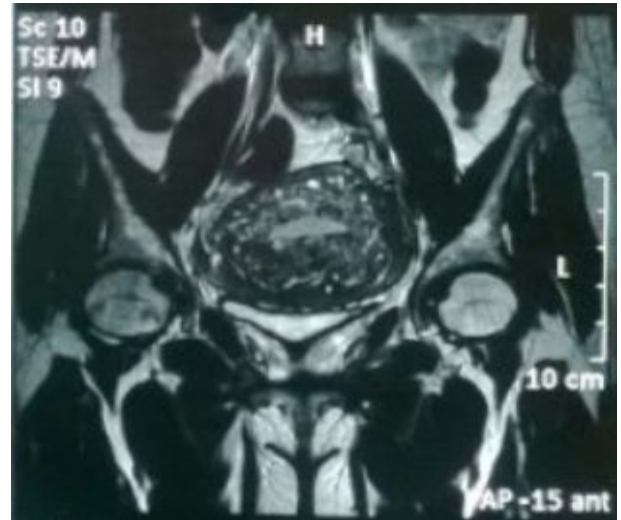


Fig 2: MRI Coronal T 2 weighted image of pelvis

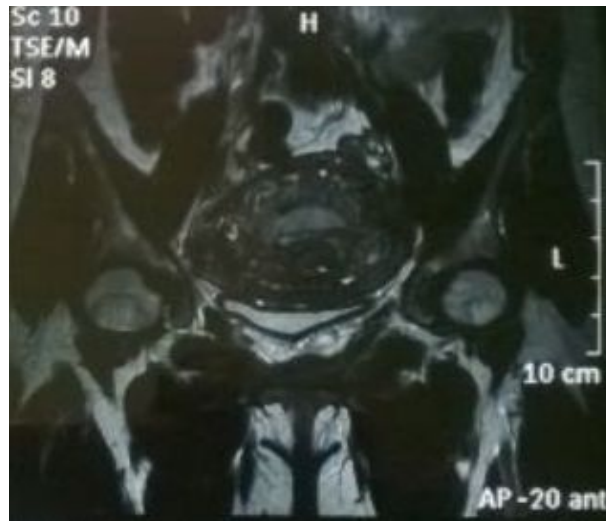


Fig 3: MRI Coronal T 2 weighted image of pelvis



Fig 4: Pelvic Binder Application



Fig 5: Cryotherapy

3. Discussion

Osteitis Pubis is a painful, non-infectious, inflammatory condition 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].

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.* and Scott *et al.*, in their study, announced a possible association between the disease and previous pregnancy.^{4,10} A possible mechanism proposed by Mehin *et al.* 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 elucidated 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]. 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.

4. Acknowledgements: None

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