

# Osteitis Pubis, Following Normal Vaginal Delivery: A Case Report

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ARTICLE INFO	ABSTRACT
<p><b>Article type:</b> Case report</p> <hr/> <p><b>Article History:</b> Received: 06-Jun-2019 Accepted: 15-May-2019</p> <hr/> <p><b>Key words:</b> Normal Vaginal Delivery Osteitis Pubis Postpartum</p>	<p><b>Background:</b> The osteitis pubis is an inflammatory-noninfectious disease of the pubic symphysis, which is rarely reported in the postpartum period after normal vaginal delivery. Misdiagnosis of this disease can leave the patient disabled with a poor quality of life</p> <p><b>Case report:</b> The case in the present study was a 35-year-old woman, admitted two days after giving birth, due to severe pain in the hypogastric and groin regions. Movement aggravated the pain in a way that disabled the patient. The pelvic radiograph showed pubic symphysis dislocation, and osteitis pubis was clinically diagnosed. Therefore, conservative treatment was prescribed for her, including relative bed rest, nonsteroidal anti-inflammatory drugs (PRN, maximum TDS), physiotherapy, and pelvic binder, for two weeks. After this period, her pain decreased gradually and in the next follow-up, which was one month later, she had no limitation of motion.</p> <p><b>Conclusion:</b> Though it seems to be a simple disease, osteitis pubis can cause profound motion disability. Early diagnosis and treatment can prevent complications, such as joint stiffness and chronic pain.</p>

► Please cite this paper as:

Boroumand Rezazadeh M, Shoorvarzi Sh, Following Normal Vaginal Delivery: A Case Report. Journal of Midwifery and Reproductive Health. 2020; 8(3): 2380-2382. 10.22038/jmrh.2020.40956.1465

## Introduction

Osteitis pubis is an idiopathic inflammatory disease of pubic symphysis following pelvic trauma, surgery, pregnancy or delivery. It causes pain in the pubic area, hip, lower back, and thighs. Some of the most important consequent complications include chronic pain in different motions, muscle stiffness, bone erosion, pubic dysfunction, and pelvic instability (1). The pubic symphysis dysfunction manifests itself through a chronic shooting ache in the pubic symphysis, spreading to the low back, hypogastrum, and the lower limb and is aggravated by movement. Due to the chronic severe pain, dyspareunia, and occasional difficulty in voiding are observed in this regard. Early diagnosis and treatment of this disease can prevent lifelong disabilities. The case in the present study was a multiparous mother diagnosed with osteitis pubis in the early *postpartum* period. This subject was chosen in

order to show the importance of early diagnosis and treatment (2).

## Case report

In the present study, a 35-year-old woman (with four gravidas and three paras) gave birth after 39 weeks of gestation. It took her 6 h to go from stage one of her labor to the delivery of the neonate (birth weight: 3200 g). Two days after delivery, she was admitted for severe pain in the lower abdominal region, which had spread to the groins, limiting her movements. Her vital signs were stable, and there were no other systemic manifestations. The physical examination revealed suprapubic and groin tenderness. Pelvic radiograph, immediately obtained, showed a one-centimeter-sized widening in the pubic symphysis (Figure1). Consequently, she was diagnosed with osteitis pubis, and conservative treatments involving relative bed rest, pelvic binder, nonsteroidal

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anti-inflammatory drugs (NSAIDs) (PRN, maximum TDS), and physiotherapy, were

prescribed and continued for 2 weeks. Her symptoms improved within this period.



**Figure 1.** Osteitis pubis

## Discussion

Osteitis pubis is an inflammatory and idiopathic disease of pubic symphysis, which is common among athletes. It seems to be related to muscular imbalance and pelvic instability (3), which can occur as a result of pelvic stresses or even complications of surgery and pregnancy (3-5). It is caused by the inflammation of pubic symphysis, cartilages, ligaments, as well as pubic rami and muscles around it. It can occur immediately after normal vaginal delivery due to an imbalance between pelvic adductors and abdominal muscles, particularly after frequent traumas (4). Due to widening ligaments during gestation or even after delivery, walking and the neonate can cause pelvic stress and carrying result in the compression of joint surfaces (4, 6). The initial symptom is a gradually-increasing pain in the lower abdomen, hip, as well as perineal and suprapubic regions, without any systemic manifestations. The pain is exacerbated by movement and relieved by resting (4). Inguinal pain can cause waddling gait; furthermore, the patients may experience

severe pain during hip abduction due to the spasm of the adductors and morning stiffness (4). Palpation reveals tenderness over the adductors and in the medial thigh (1).

Important distinctive diagnosis of this disease is pubic osteomyelitis, including fever, more severe symptoms, and long-standing complications (7). The symptoms usually start manifesting themselves from 1 to 8 weeks after the predisposing factor (4). The diagnosis is usually based on a gradually-progressive pain history, tenderness over the pubic symphysis, and resistance test of adductor muscles. A complete abdominal urogenital and musculoskeletal examination should be performed (8).

Other distinctive symptoms include hip fracture, stress fracture, sacroiliac joint fracture, crushed muscle, inguinal hernia, pudendal nerve injuries, and adductor strain (9). The radiograph shows the widening of the pubic symphysis, bone absorption, and rami osteopenia. In some cases, irregularity, subchondral erosion, and sclerosis can be detected in the pubic symphysis

within 4 weeks (5, 10, 11). Complete blood count, erythrocyte sedimentation rate, and urine analysis should be obtained for diabetic, immuno-deficient, and feverish patients or those who have recently undergone surgery. Laboratory studies can help distinguish osteomyelitis from osteitis pubis (5).

If osteitis pubis is not treated, it results in pubic symphysis dysfunction with a shooting ache in the pubic symphysis. This pain spreads to the low back, hypogastrium, and lower limb and is aggravated by any movement, especially by the hip abduction, walking, and carrying. Other effects are reported as pain in daily activities, such as bending, standing on one leg, rising, going up or down the stairs, and turning while lying. The patient may also hear a clicking sound in pubic symphysis and experience dyspareunia and sometimes difficulty in voiding (2). However, the discomfort decreases by resting.

In addition, the disease is usually self-limited (4). Lying in fetal position, relative rest, NSAIDs, physiotherapy, corticosteroids, massage, and pelvic binder can help the patients (8); however, the key treatment is resting (5). Sometimes surgical strategies, such as debridement, vaginal resection, and arthrodesis, are also used (7). Electroshock therapy can improve pain rapidly (4, 6). Massage therapy, using crutch (8), and rehabilitative exercises are recommended for lumbopelvic muscles (2)

## Conclusion

Complications of osteitis pubis include muscle stiffness and bone erosion (8). Osteitis pubis usually has a good prognosis and improves within several weeks or months (8). If osteitis pubis results in pubic symphysis dysfunction, the woman becomes disabled and her personal, maternal, sexual, and housekeeping roles are compromised. This disease causes feelings of frustration, loss of control, and helplessness (1). Continuous pain in postpartum period is abnormal, and it should be diagnosed if there has been no obvious injury since a delay in treatment leads to joint instabilities and inflammation (9).

## Acknowledgments

The author would like to thank Paria Afraz for editing this paper.

## Conflicts of Interest

The authors declare no conflicts of interest.

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