

A RARE CLINICAL CONDITION AFTER PELVIC SURGERY: OSTEITIS PUBIS PELVİK CERRAHİ SONRASI NADİR GÖRÜLEN KLİNİK BİR DURUM: OSTEİTİS PUBİS

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Özet

Osteitis pubis; abdominoperineal rezeksiyon, inguinal herniografi, prostatın endoskopik rezeksiyonu, anterior kolporafi sonrası, retropubik üreteropeksi ve periüretral kollogen injeksiyonu sonrası gibi çeşitli pelvik cerrahide karşılaşılan karmaşık bir durum olarak tariflenir. Bu çok az görülen komplikasyon/durum travma, infeksiyon, inflamasyon ve diğer nedenlerle ilişkili olabilir. Klinik ve/veya radyolojik tanı konulur. Tedavi genellikle istirahat ve antiinflatuar ilaçlarla olur. Bu nadir görülen durumu literatür eşliğinde derledik ve etyolojisini, tanı ve tedavisini tartıştık. (Anatol J Clin Investig 2009;3(4);259-261).

Abstract

Osteitis pubis has been reported to complicate a variety of pelvic surgeries, including abdominoperineal resection, inguinal herniorrhaphy, endoscopic resection of the prostate, after anterior colporrhaphy, retropubic urethropexy, and even after periurethral collagen injection. This rare complication/condition may associated by trauma, infection, inflammation or other causes. It is diagnosed by clinical and/or radiological. Treatment is usually rest and anti-inflammatory medication. We reviewed this rare condition with literature and discussed etiology, diagnose and treatment. (Anatol J Clin Investig 2009;3(4);259-261).

Introduction

Osteitis pubis is first description in the English literature by Beer [1] in 1924. It has been described as a noninfectious, self-limited inflammatory condition of the symphysis pubis [2,3]. And it may also involve the adjoining pubic bones, the perichondrium, and the periosteum [4]. Postoperative osteomyelitis is different from this disease. It is rare and originates from infectious agents [5]. Osteitis pubis has been reported to complicate a variety of pelvic surgeries, including abdominoperineal resection, inguinal herniorrhaphy, endoscopic resection of the prostate, after anterior colporrhaphy, retropubic urethropexy, and even after periurethral collagen injection [6]. A few cases have been reported to occur after endoscopic inguinal hernia repair as the result of attachment of the prosthesis to the os pubis [7,8]. And this painfully inflammatory process is mostly seen in athletes. It is typical in sports with a lot of sprinting and sudden changes of direction, such as running, basketball, soccer, ice hockey, and tennis [9,10]. Some rheumatic disorders have been associated with osteitis pubis including ankylosing spondylitis and rheumatoid arthritis [11].

Although the pathogenesis of osteitis pubis is not clear, periosteal trauma seems to be an important initiating event [11]. The etiology of osteitis pubis has been unclear. The four main hypotheses for the cause of postoperative

osteitis pubis include trauma, impaired vascular circulation, trophic bone changes related to a causalgia-like mechanism and infection [2,9,12,13]. Beer [1] was the first to postulate that osteitis pubis was the result of intraoperative trauma to the symphysis and its muscular attachments either from surgical instruments or retractors. Marshall-Marchetti-Krantz procedure, in which sutures are placed directly into the periosteum or cartilage of the symphysis pubis, osteitis pubis is uncommon, occurring only in 1% to 2.5% [14,15]. On the other hand, the symphysis pubis is a nonsynovial-lined, amphiarthrodial joint located between the two pubic bones. Traction, micro trauma and instability of the sacroiliac joint and symphysis pubis can be the possible causes of osteitis. Biomechanical analysis of the pelvis has shown that the innominate bones function as arches, thus transferring the weight of the upright trunk from the sacrum to the hips. The richly innervated symphysis acts to connect the two weight-bearing arches. The exact cause of this condition is unclear; however, it appears that the overuse related to kicking and running results in shearing stress at the symphysis [4,16,17].

The diagnosis of osteitis pubis was based on classic clinical symptoms (suprapubic pain, difficulty, and pain with ambulation) and abnormal radiographic findings. Osteitis pubis

associated with infection may present as an acute illness or as chronic discomfort frequently after urologic or gynecologic surgery [18]. Pain is usually radiates to the suprapubic area and the adductor surfaces of the thighs and it usually begins ten days to two months after an operation upon the urinary bladder [19]. Pain can occur while walking, radiating to the perineal, suprapubic region. Furthermore, there is mild leucocytosis, raised levels of acute phase proteins (fibrinogen, C reactive protein), and increased erythrocyte sedimentation rate. The anterior portion of the pelvis and the adductor muscles are tender and spasm may accompany [20]. Pain is the primary symptom associated typically with difficulty in ambulation and the characteristic "waddling gait". Symptoms may develop from 1 to 8 weeks after the initiating event. The duration of the signs and symptoms is related to the severity of the inflammation and the response to therapy after the appropriate diagnosis is established [11]. Although patients with osteitis pubis can have debilitating pain for several months after onset, the process is self-limited and resolves with conservative measures [6]. Early in the course of osteitis pubis, radiographs are typically normal [4]. After approximately 6 months, x-rays of the symphysis may show a frayed appearance of the pubic periosteum, loss of cortex, widening, erosions, and sclerosis along the articular border [21]. Holt *et al.* [10] is concluded that standard AP radiographs of the pelvis obtained from 1 week to 9 months after the onset of symptoms demonstrated the characteristic findings of osteitis pubis in 83% of the athletes. These findings included erosion, rarefaction, resorption, and sclerosis of the pubic bones. In its early stages, osteomyelitis presents similarly to osteitis pubis, making the diagnosis difficult. Close monitoring of patients diagnosed with osteitis pubis is recommended in these patients. If a question about the diagnosis exists, computed tomography-guided pubic bone aspiration for culture is advocated [6]. Kammerer-Doak *et al.* [14] reported that the mean time of onset of symptoms from the date of Marshall-Marchetti-Krantz procedure was 69.8 days (range 10 to 459 days). And pelvic radiographic findings included pubic bone sclerosis, widening of the joint spaces, and rarefaction and were detected. The athletes who have this disease with normal AP radiographs had bone scans that demonstrated increased radiotracer (99mTc) uptake throughout the area of the symphysis pubis as a characteristic of osteitis pubis. A bone

scan usually shows increased uptake in the pubic bones on both sides of the symphysis, often before any radiographic changes are seen [22]. Holt *et al.* [10] evaluated the athletes with normal AP radiographs and they were able to show bone scans demonstrating an increased radiotracer (99mTc) uptake throughout the area of the symphysis pubis as a characteristic of osteitis pubis. Bone scanning, which is more sensitive than radiography, often demonstrates increased uptake over the symphysis and pubic ramus [22,23]. The symmetry of the uptake helps to rule out tumors, tendinitis, strains, and pelvic stress fractures, all of which are characteristically asymmetric [24]. MRI and computed tomography scans can show inflammatory changes in the bone [25]. MRI illustrates variable findings of joint-space alteration, articular surface irregularity, para-articular marrow edema and extrusions of the symphyseal disk [20] and includes low intensity signal on T1 weighted and a high intensity signal on T2 weighted images. Sclerosis has low intensity signal on both T1 and T2 weighted images [26]. Osteomyelitis and osteitis's MR imaging appearances are similarly in the initial stages. Both osteitis pubis, an inflammatory disease, and osteomyelitis pubis, an infectious disease, can appear in one patient at the same time, this condition cannot forget. Biopsy and culture may necessary to make a differential diagnosis with osteitis pubis, an inflammatory condition of the pubic symphysis and the surrounding muscular insertions [20,25]. Osteitis pubis treatment is rest and anti-inflammatory medication. Some athletes with osteitis pubis did well after local injections with corticoids [10]. Heparin therapy has been described [12,27,28]. The use of antibiotics, radiation, vitamin B diathermy and surgery have been recommended(29,30) but some of these are not find favorable in the course of time. But patients with osteitis pubis following urologic or gynecologic procedures or have a proven infection may require surgery [18]. Most of the described treatments have been directed at the associated inflammation. The use of nonsteroidal antiinflammatory agents is popular and show clinical and radiologic improvement. The use of narcotic analgesics are, however, often necessary for relief of pain that can be severe. With persistence of symptoms, a short course of glucocorticoids can be administered anticipating a dramatic improvement in symptoms within 24 to 48 hours [11]. Additional clinical and experimental studies are required to further investigate its pathogenesis.

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