Chronic Post Partum Osteitis Pubis Managed with Chiropractic

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Abstract

Introduction: This case report describes a 32 year old female who was referred to a chiropractic office with MRI confirmed, pregnancy induced osteitis pubis of two years duration. The patient was unable to walk unassisted due to pain. While osteitis pubis is well documented in athletes with repetitive use injuries that are healed with rest, the literature does not discuss chronic post partum osteitis pubis in a non-athlete that remains unresolved after rest.

Methods: Initial treatment of chiropractic adjustments utilizing contact-specific, high velocity, low-amplitude adjustments (i.e.: Gonstead technique) were applied to the site of sacroiliac subluxation with mild improvement. The addition of strengthening exercises to one-sided abdominal oblique and the contralateral adductor muscles were used as adjunct therapy to stabilize the pubic symphysis and resolve the condition.

Discussion: Pregnancy creates unique structural stresses to the female body. In the three joint complex of the pelvis, asymmetry of movement can create excessive instability in other parts of the complex. Adjustments serve to normalize motions and remove these stresses. In this chronic case, chiropractic adjustments to the sacroiliac joint in addition to strengthening exercises provided complete restoration of symmetry and resolution of chronic osteitis pubis.

Conclusions: After failed conventional care of rest and orthopedic supports, chiropractic adjustments and therapeutic exercise resolved the patient’s osteitis pubis and normalized her functional ability.

Keywords: chiropractic, osteitis pubis, adjustment, subluxation, spinal manipulative therapy, therapeutic exercise

Introduction

The incidence of osteitis pubis among pregnant and post partum women is uncertain. Tettambel (2007) reports that one in seven women with the diagnosis of chronic pelvic pain has undetermined etiology and management includes rest and pelvic stability with support belts. This case study presents chiropractic management of a patient with subluxations and pregnancy induced osteitis pubis of two year duration.

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Case Report

Patient History

A 32 year old well nourished female was referred, by an OBGYN office, to a private chiropractic practice for management of chronic pubic symphysis pain. The pain began two years ago in the last trimester of her first pregnancy. It was somewhat relieved post partum. The pain intensified again during a second pregnancy and remained unresolved two months after delivery. The pain was described as sore, stabbing, and burning. Her pain diagram indicated constant localized pain in the pubic region over the pubic symphysis. With 10 being the worst pain, she rated the pain...
Neurological testing proved normal and symmetrical deep pubic symphysis on the standing leg side. One-legged standing anteroposterior palpation of the SI joints and lumbar spine. The left SI joint pelvic x-rays revealed a 4mm superior displacement of the painful clicking that happened with motion. She walked with rest and provoked with standing, walking, walking up by exercises, chiropractic adjustments and heel lift were resolved. During this time the patient was instructed to rest and to avoid climbing stairs, widening her stance, walking up inclines (as much as possible for a new mother with a newborn and toddler). She was fitted with a trochanter belt for stability of the pelvic ring. After one month of care, an attempt was made to strengthen large muscle groups with therapeutic exercise including abdominals, quadriceps and hamstrings but the patient did not tolerate any exercise well enough to follow through.

After three months of care with little change in these chronic symptoms, a heel lift was added to try to shift her weight bearing center of gravity. Chiropractic adjustments were limited to every other week. The rest, limited activities, exercises, chiropractic adjustments and heel lift were unsuccessful in resolving this condition. After 5 months she remained a 4-5 out of 10 as an average for her pain scale ratings and still had days where she needed to use a walker for ambulation.

At a 5 month evaluation a detailed manual muscle testing evaluation was undertaken. All muscles of the abdomen, thigh and legs, both anterior and posterior, were separately checked for weakness or asymmetry. These findings revealed reproduction of pain and extreme weakness with left hip adductors and right abdominal oblique. From these findings, the patient was given left leg adduction exercises and right sided abdominal oblique exercises to tolerance. After one week of exercises the pain was reduced from 4-5 out of 10 to 2 out of 10 on a pain scale. After 4 weeks there was complete resolution of pain and symptoms and the patient had resumed a normal exercise routine. After 1 year she remained asymptomatic.

Chiropractic Examination

Chiropractic examination was performed using motion palpation of the SI joints and lumbar spine. The left SI joint was restricted and there was noticeable limited range of motion in all planes. On palpation, there was marked point tenderness at the left SI joint and it was edematous at the articulation. Subluxation findings at the left SI joint were found as evidenced by static palpation, motion palpation, nerscope instrumentation, and radiographic findings.

Standing stress radiographic analysis of the pubic bone was performed bilaterally. One-legged standing anteroposterior pelvic x-rays revealed a 4mm superior displacement of the pubic symphysis on the standing leg side.

Neurological testing proved normal and symmetrical deep tendon reflexes in the lower extremities along with normal sensation testing. Motor testing was not possible in the lower extremities due to pain.

Chiropractic Care

The chiropractic care began with 15 visits at a frequency of about one time per week. A specific contact, high-velocity, low-amplitude adjustment was applied using the Gonstead technique. Adjustments to the left SI joint (P-L) using the sacrum as the lever in the side posture position gave relief in the form of temporary improvement of ambulation and a lessening of pain (4-5 out of 10) but the condition was not resolved. During this time the patient was instructed to rest and to avoid climbing stairs, widening her stance, walking up inclines (as much as possible for a new mother with a newborn and toddler). She was fitted with a trochanter belt for stability of the pelvic ring. After one month of care, an attempt was made to strengthen large muscle groups with therapeutic exercise including abdominals, quadriceps and hamstrings but the patient did not tolerate any exercise well enough to follow through.

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Discussion

Osteitis Pubis was first written about by Beer in 1928 as a complication of urologic surgery. Radiographic evidence of osteitis pubis includes subchondral sclerosis with articular erosions at the pubic symphysis, small osteophyte formation and a slight offset of the pubic bones. Currently, there is no standardized agreement on the definition of post partum pubic symphysis dysfunction, nor is there a standard protocol for treatment. Differences in the reported rates of pubic symphysis dysfunction in pregnancy have been attributed to this shifting definition and rates of osteitis pubis in pregnancy are unknown. Reported rates of this dysfunction in athletes is 6.3%.

The female body is subjected to a variety of structural stresses in pregnancy. Some postural changes that commonly occur during pregnancy are an increased lumbar lordosis and sacral base angle, increased segmental mobility (particularly of the sacroiliac and pubic articulations), a shift of weight bearing to the heels, and gait alterations. While the cause of pubic symphysis dysfunction is likely multifactorial, it has been suggested that instability of the pelvic girdle is the most common cause of pelvic joint pain in pregnancy, including pain in the pubic symphysis.

Maternal hormones contribute to joint-laxity by producing connective-tissue changes which cause ligaments to lengthen and weaken, allowing changes in posture to accommodate the pregnancy. This change puts more stress and increases the work-load of muscles, which usually provides the stability to the pelvic ring. A combination of muscle weakening and joint laxity brings the chance of joint instability and corresponding pain syndromes.

Pubic symphysis dysfunction significantly impacts quality of life. The symptoms can be from mild to severe pain in the pubic region, groin, and medial aspect of the thigh. The pain is worse during weight bearing activities because the pubic symphysis serves as the anterior axis for innominate rotation during normal walking. It is also subjected to superior shear forces during single-leg stance in the swing phase of gait. In many respects, the symptoms and radiological changes seen post pregnancy are similar to those observed in athletes and the protocol for resolution of symptoms is rest and time. In this case, rest did not provide resolution. When this patient could tolerate exercise, a crossed pattern of abdominal oblique and adductor muscle strengthening exercises proved to have a major role in stabilizing of the pubic symphysis.

A study by Depledge et al. where 90 women with symphysis...
pubis pain were given either exercises only, exercises with a
ridged support belt or exercises with a non-ridged support belt,
it was found that the use of belts did not add to the effects of
exercise and advice alone. 12

As seen in this case, the factors for development of osteitis
pubis can be made worse from the trauma of multiple
pregnancies. Post mortem studies demonstrate mechanical
damage in all women who deliver vaginally if a baby is over
2.3 kg or 5 pounds. 13 Multiple births allows for repetitive
insult to the articular surfaces of the pubic symphysis from
repeated distraction, disturbance of the symphyseal disk, and
damage to the hyaline cartilage. 14

Restricted motion of one or both sacroiliac joints may
contribute to increased motion at the pubic symphysis. 15 In
this case, sacroiliac joint restriction, coupled with ligament
laxity from the maternal hormones may result in repetitive
stress to the pubic symphysis. Chiropractic adjustments were
applied to sites of restricted sacroiliac motion using the
Gonstead protocol. The initial moderate improvement in the
patient’s pubic pain may be attributed to the improved
symmetry of motion in the sacroiliac joints.

Conclusion

Chiropractic care with functional rehabilitation has been
presented in a patient with osteitis pubis pain of two year
duration. The predisposition for asymmetrical motion of the
pelvic ring during pregnancy from maternal hormones and
biomechanical factors may be sufficient to cause excessive
movement of the pubic symphysis, resulting in pain.
Chiropractic management resulting in restoration of a more
symmetrical SI joint motion coupled with strengthening
exercises targeted to abdominal and adductor muscles,
enhanced stability of the pubic symphysis, thus resolving the
patient’s pubic pain. This case presents an under reported
problem which began in pregnancy. Further study is
recommended.

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