Case Report

Post-partum Symphysis Pubis diastasis

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ABSTRACT

Pubic symphysis is a non-synovial joint, made up of a fibrous cartilage disc connecting the two sides of pubic rami in the midline. During pregnancy under the influence of hormones particularly relaxin, the gap increases by 2 to3mm. When the diameter is more than 10 mm, it is considered as pubic symphysis diastasis. Pregnancy and childbirth are the most common causes of pubic symphysis diastasis followed by traumatic causes. Women with post-partum symphysis diastasis present during puerperium with inability to bear weight owing to severe supra-pubic and groin pain. They have complaint of severe excruciating pain while standing up or to perform any movement involving hip abduction. For the diagnosis, proper history regarding delivery should be sought followed by physical examination and radiological imaging. Most cases can be treated with conservative management which includes- use of analgesia and anti-inflammatory medicines for the pain management and stabilization of pelvis using brace/pelvic belt. Some may benefit from physiotherapy. In extreme cases, operative fixation may be required with the involvement of orthopedic surgeon.

Keywords: post-partum symphysis diastasis; pubic symphysis; rare presentation.

INTRODUCTION

Pubic symphysis is a non-synovial joint, made up of a fibrous cartilage disc connecting the two sides of pubic rami in the midline. The joint is reinforced by four ligaments-superior, inferior, anterior and posterior pubic ligaments.[2] The distance between two pubic bones varies with age. Women have a greater thickness of fibrocartligenous disc for more mobility of pelvic bone which facilitates childbirth due to greater pelvic diameter. In adults it is generally 4-5mm[1]. During pregnancy under the influence of hormones particularly relaxin, the gap increases by 2-3mm. When the diameter is more than 10mm[1], it is considered as pubic symphysis diastasis. The reported incidence of pubic symphysis diastasis related to pregnancy is 1:300 to 1:30,000.[3] Pregnancy and childbirth are the most common causes of pubic symphysis diastasis followed by traumatic causes. The risk factors in obstetric population include- primigravid women, multiple gestations, prolonged labor, precipitate labor, forceps vaginal delivery, shoulder dystocia, epidural analgesia and delivery of macrosomic baby.[3]

CASE REPORT

Mrs Pun, 33 years old, G2 P1 L1 A1 was a booked case in our hospital. Her antenatal period was uneventful. She had a normal delivery 3.5 years back and laparotomy with right salpingectomy done for right sided ectopic pregnancy two years back. She presented at 40+4 WOG in latent phase of labor. Her labor progress was monitored. Her first, second and third stages of labor were 10 hours, 45 mins and 5 mins respectively. She delivered a female baby weighing 3.4kg. Her intrapartum period and hospital stay were uneventful.

She presented on her…… puerperal day with the compliant of acute, excruciating pain above symphysis pubis for one day. Her pain was localized, continuous, severe enough to restrict her movements and was aggravated on bending forward. Lying supine could relief her pain. She had no history of fever or trauma. She was also evaluated by orthopedic surgeon and radiographs of pelvis were ordered for assessment of symphysis pubis and bilateral sacroiliac joints. Her X-ray revealed

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abnormal widening of symphysis pubis to a maximal transverse diameter of 2 cm and sacroiliac joints were unaffected.

She was under conservative management- with regular analgesics and was placed in a pelvic binder and weight bearing was avoided. She was discharged on her third day of admission as her symptoms were improving and was continued with same management.

On her follow up, her symptoms improved clinically and radiographically and hence advised for weight bearing as tolerated with continued pelvic binder and analgesics as per needed. After two months of follow-up visits, she had completely recovered.

DISCUSSION

Women with post-partum symphysis diastasis present during puerperium with the inability to bear weight due to severe supra-pubic and groin pain. They have complaint of severe excruciating pain while standing up or performing any movement involving hip abduction.

The pain may limit her to bed rest. For the diagnosis, proper history regarding delivery should be sought followed by physical examination and radiological imaging. Tenderness over the joint and suprapubic region is elicited during examination. Patient's leg will involuntarily move apart on supine position.

The diagnosis is often straightforward with the presenting features and plain X-ray however other causes should be considered by the clinicians. Differential diagnosis includes labial or perineal tears, musculoskeletal pain, lumbosacral radiculopathy, pubic osteolysis, osteomyelitis, and postpartum fracture.

On radiograph, abnormally wide gap is noted between the pubic bones- which should be more than 10 mm for the diagnosis. Sacroiliac joint may be involved bilaterally or unilaterally. Magnetic resonance imaging (MRI) and computed tomography (CT) scans can give detailed information about the separation and involvement of sacro-iliac joint. Though MRI is superior in demonstrating soft-tissue injury and inflammation of the subchondral region and bone marrow, simple radiograph is most commonly used as it is cost-effective and easily available in all health centers.

Most cases can be treated with conservative management which includes- use of analgesia and anti-inflammatory medicines for the pain management and stabilization of pelvis using brace/pelvic belt. Some may benefit from physiotherapy. In extreme cases, operative fixation may be required with the involvement of orthopedic surgeon. The surgical options are- closed reduction with application of binder, application of external fixator with or without sacroiliac screw fixation and internal fixation with plate and screws.[3] The early surgical intervention is required when the gap is more than 40mm-60mm.[4]

The reported prognosis with the conservative management is good in most cases. Follow up radiographs in most studies show near-complete closure and complete resolution of symptoms within three months. Some might require therapy up to six months.

The reported complications of the situation can be urinary outflow obstruction, hematoma formation and venous thromboembolism. The bonding between mother and newborn can be hampered due to painful ambulation and prolonged immobilization affecting mental health as well. However no long term sequele is reported. Women should be informed about high recurrence rate of 68-85% in subsequent pregnancy.[1]

CONCLUSIONS

A rare presentation of postpartum symphysis pubis diastasis can be distressing to the affected women which can hamper her physical and mental health. Prompt diagnosis and conservative management alone can help the patient to resolve completely without any invasive procedure.

Involvement of orthopedic surgeon and physiotherapist is necessary. Some may need psychological counselling as well. The clinicians should be aware about the condition and its increased incidence in subsequent pregnancy.

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