



Case Report

Symphysis Pubis Diastasis after Normal Vaginal Birth: A Case Series

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ABSTRACT

Symphysis Pubis Diastasis (SPD) or Pelvic Girdle Pain (PGP) after normal vaginal delivery is an uncommon condition. Most common presentation is pain in pubic area and groin causing inability to stand, sit and walk properly because of pain. The pain increases on applying manual pressure to the pelvis in antero-posterior and lateral direction. Definitive diagnosis can be made by an anteroposterior X-ray of the pelvis. The treatment is mostly conservative with pelvic strapping and analgesics. In neglected cases, the patient can develop chronic pain with continuous gait abnormality. Here we present three cases of SPD following spontaneous vaginal delivery.

Key words: Postpartum, Diastasis, Pubic symphysis

INTRODUCTION

SPD (Symphysis Pubis Diastasis) means an abnormally wide gap between the two pubic bones at the symphysis pubis joint situated at the front of the pelvis. In late pregnancy, increased laxity of pelvic ligamentous structures caused by relaxin and progesterone predisposes to traumatic damage to the pelvic joints. Sometimes this combined ligamentous relaxation and pelvic strain becomes so pronounced that one occasionally sees permanent diastasis of pubic symphysis, with persistent symptoms and morbidity, caused by instability of symphysis and the sacroiliac articulation affecting the gait of the patient. [1] It can only be diagnosed conclusively by

investigation such as x-ray, ultrasound or MRI scan.

Pre-disposing factors which may lead to disruption of pubic symphysis include multiparity, cephalopelvic disproportion, precipitate labour, prolonged labour, difficult forceps delivery and pre-existing pathology of pelvic bones.

We present a case series of three cases that had spontaneous symphysis pubis diastasis during the intrapartum period when they delivered vaginally.

CASE SERIES

Our first case is a case of a 26-year-old P₂L₂ admitted to our hospital on the 5th day of puerperium with c/o severe pain in pubic region and back for 2 days and

difficulty in walking & passing urine for 1 day. She delivered a 3.6 kg male child vaginally. There was history of prolonged labour and fundal pressure during delivery but no history of trauma, instrumental delivery, precipitate labour, fever, vomiting & burning micturition. On general examination, patient was walking with support and had a distressed look. On local examination extreme tenderness was present in the pubic symphysis region with separation between the two pubic bones and restriction of hip movements. There was retention of urine and 700 ml urine drained on catheterisation. A clinical diagnosis of pubic bone diastasis was made.



Figure 1- Pelvic X ray(AP view) showing a disruption of 2.5 cm

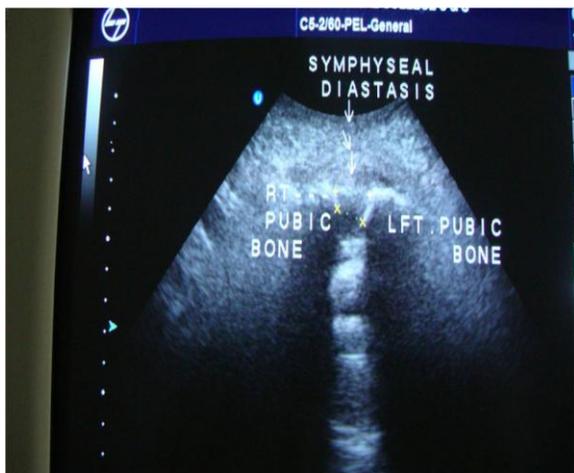


Figure 2- USG showing gap between Pubic bones

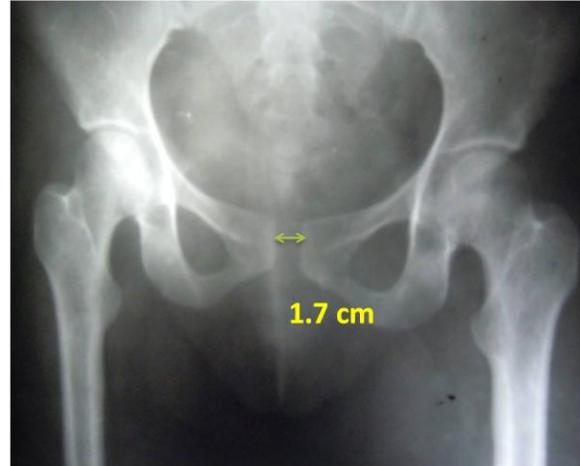


Figure 3 - Pelvic X ray (AP view) after 3 weeks

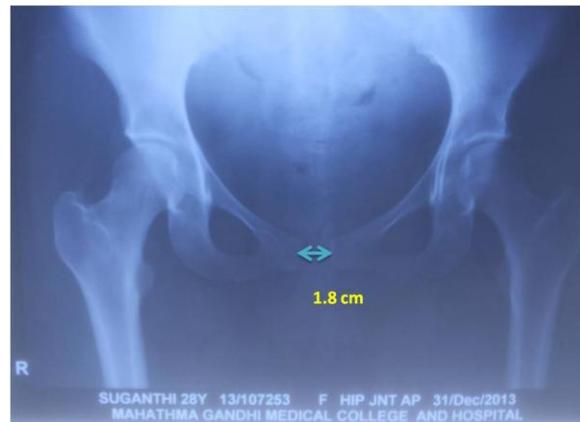


Figure 4- X ray Pelvis (AP view) showing a gap of 1.8 cm

On investigating, pelvic x-ray showed disruption of pubic symphysis by 2.5 cm (Figure 1). Ultrasound examination also revealed the same finding (Figure 2) Orthopaedics consultation confirmed the diagnosis. She was managed conservatively with bed rest in left lateral position, pelvic strapping and figure of 8 bandage in knee joint. Indwelling foleys catheter was inserted; analgesics and anti-inflammatory drugs were given. She was discharged on the 11th postpartum day with advice of complete bed rest, pelvic strapping and analgesics. Follow up after 3 weeks showed decrease in pain at the suprapubic region and X-ray showed a gap of 1.7 cm (Figure 3). She was able to walk only with support after removal of pelvic strapping belt. Her

catheter was removed. In her next visit after one month she could walk independently without pain and do her routine household work.

The second case that we came across was a 28 year old G₂A₁ who delivered a term male child 3.4 kg vaginally and reported severe pain in the left inguinal crease and legs on the 4th postnatal day. Antero-posterior X ray of the pelvis revealed a gap of 1.8 cm (Figure 4) between the symphysis pubis and a diagnosis of SPD was made. Her gait was abnormal but she required no support. She was treated conservatively by bed rest, analgesics and pelvic strapping for two weeks following which her condition improved. She was able to walk properly after two months and recovered completely.

Our third case is that of a 28 year old P₃L₃ who delivered a 3.7 kg term male baby vaginally and reported to our Casualty on the fifth postnatal day with tenderness in the symphysis pubis and pain in the right leg of 2 days duration. Pelvic compression test was found to be positive. She was able to flex her leg only up to 30°. Movements of leg in all directions was painful and restricted but with no neurovascular deficit. Orthopaedic consultation following X-ray confirmed the diagnosis to be SPD with a diastasis of 2.3 cm between the pubic bones. She was also treated conservatively with pelvic binder, analgesics and antibiotics. She was discharged after 5 days and on follow up after one month patient had improved remarkably.

DISCUSSION

The reported incidence of peripartum pubic separation varies from 1 in 300 to 1 in 30,000 deliveries. [2,3] It is more common in Scandinavian and black women. Mild separation of the symphysis pubis during pregnancy is considered physiological. A study of 14 women using computed

tomography (CT) to assess anatomical changes in the pelvis following uncomplicated vaginal deliveries showed that 42% of the postpartum women had widening of the symphysis pubis, while none in the control group did. [4] Separations of more than 10 mm are usually associated with tenderness and difficulty with walking, and are thought to be pathological. [5]

Factors contributing to the rupture of the symphysis pubis during vaginal delivery are poorly defined. It can occur spontaneously or following procedures like symphysiotomy. The McRoberts manoeuvre, which is generally safe, may result in pubic symphysis diastasis, especially when excessive force is used or when there is prolonged placement of the patient's legs in a hyperflexed position. The non-pregnant gap is 4-5mm but in every pregnancy there will be an increase of at least 2-3mm due to the fact that ligaments which 'tie' the joint become slightly slacker under the influence of the pregnancy hormones.

Following delivery, this natural extra gapping decreases within days although the supporting ligaments will take three to five months to fully return to their normal state to make the symphysis pubis a strong joint again. It is very common to find that although a woman might be complaining of groin and pubic pain, the main cause of the symptoms is actually at one or both of the sacroiliac joints and this puts extra stress on the symphysis making walking, climbing stairs, turning over in bed and lifting heavy weights difficult or even impossible.

The pain of symphysis pubis diastasis during and after pregnancy can be disabling. Most patients present with severe pain located in the areas supplied by the pudendal and genitofemoral nerves. The pain may radiate to the sacroiliac joints and shoot down the buttocks and legs as seen in our second and third case.

Pubic symphysis diastasis following childbearing and vaginal birth differs from other traumatic symphyseal diastasis with respect to both natural history and treatment. Pubic symphysis diastasis following vaginal delivery is rarely associated with soft tissue and visceral injuries compared to traumatic symphyseal rupture. Complications include hemorrhage, osteitis pubis and postpartum depression. Cases of bladder incarceration [6] and bowel herniation [7] have been reported in traumatic symphysis pubis diastasis. However, vestibular rupture and complete disruption of the external anal sphincter have been reported in only one case of symphyseal diastasis during spontaneous vaginal delivery. [8]

Most cases of non-traumatic symphysis pubis diastasis following vaginal birth can be successfully managed conservatively with bed rest, analgesia and restriction of activities. [9] Techniques for managing traumatic diastasis of the pubic symphysis include bed rest, hip spica casting, figure of 8 strapping at the knees, pelvic slings, surgery in extreme cases. In cases having continuous waddling gait and inability to do routine chores, plating of symphysis has a definite role. Diastasis of pubic symphysis >4 cm requires surgical management in the form of external fixation or open reduction internal fixation. [10]

CONCLUSION

Pubic symphysis diastasis is an uncommon injury that should be considered when evaluating patients in the peripartum period who are experiencing suprapubic, sacroiliac or thigh pain. This case series demonstrated that severe non-traumatic symphyseal rupture associated with vaginal delivery can be managed satisfactorily, without any operative intervention.

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