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Case Report

Obstetrics and Gynaecology Section

# Post-Partum Diastasis of the Pubic Symphysis: Report of a Rare Case

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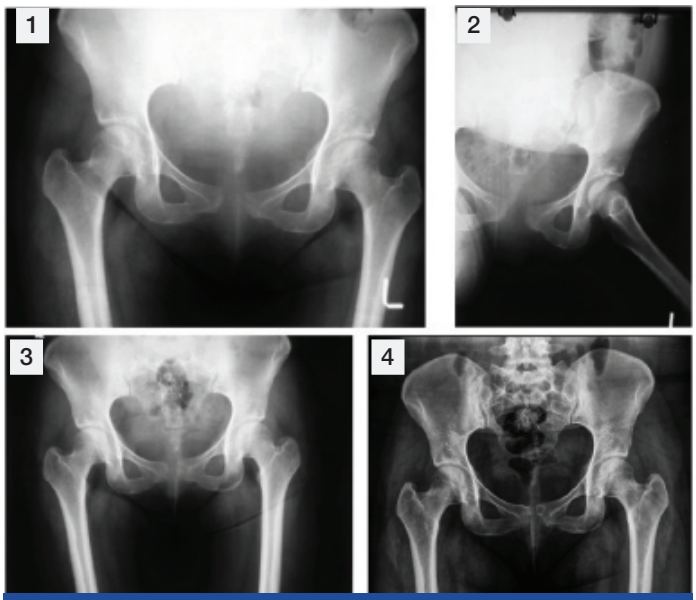
## ABSTRACT

Post-partum pubic symphysis diastasis refers to an abnormally wide gap between the two pubic bones following delivery. It is an uncommon and under diagnosed condition resulting in acute pelvic pain. A case of pelvic diastasis in a 24-year-old $G_2A_1$ following normal vaginal delivery is reported. Management consisted of simple conservative treatment with binders and analgesics, which were sufficient in achieving a complete reversal of the condition. The low incidence of 1 in 3700 normal vaginal deliveries over a 5 year period at Public Health Centre, Chennai, coupled with the rarity of the condition renders it as a salient presentation in the practice of our profession.

**Keywords:** Pelvic binders, Pelvic pain, Vaginal delivery complications

## CASE REPORT

A 24-year-old $G_2A_1$ at 40 weeks with no co-morbidities was admitted to our institute with labour pains. Her labour progressed slowly and she delivered a 3.2 kg baby by normal vaginal delivery without any complications. The total duration from active phase to delivery was 7 hours. On post natal day 1 she complained of severe pain over mons pubis and difficulty in turning over on bed. On examination she had severe tenderness over pubic symphysis. Orthopaedician opinion was sought and x-ray pelvis antero-posterior and lateral view were taken. The x-rays demonstrated a wide gap of 2.5 cm between the pubic bones and the condition was diagnosed as symphysis pubis diastasis [Table/Fig-1,2]. She was treated symptomatically with analgesics, anti-inflammatory for 5 days and pelvic binders was recommended for 6 months. Patient was discharged on day 5 and reviewed after 1 month when she felt symptomatically better and after 3 months of conservative management there was complete resolution of symptoms. Repeat X-rays were taken after 6 months and 2 years of follow up and they showed significant closure of the diastasis with an inter-pubic distance of 2 cm and 1.2 cm respectively [Table/Fig-3,4].




**[Table/Fig-1-4]: (1)** Antero-posterior view of pelvis demonstrating diastasis of 2.5 cm **(2)** Lateral view with diastasis of 2.5 cm **(3)** Post treatment at 6 months: Antero-posterior view of pelvis demonstrating reduction of diastasis to 2 cm **(4)** Post treatment at 2 years: Antero-posterior view of pelvis demonstrating reduction of diastasis to 1.2 cms

## DISCUSSION

Symphysis pubis diastasis (SPD) following normal vaginal delivery is quite a rare condition. The reported incidence of peri-partum pubic separation varies from 1 in 300 to 1 in 30,000 deliveries [1,2]. It is common to find many women complain of groin and pubic pain during pregnancy which is due to physiological separation of symphysis pubis which contributes to increased stress during delivery, resulting in SPD. More than 10 mm separation of the symphysis pubis usually present with tenderness and difficulty with walking and are thought to be pathological [3,4]. Some patients give history of pain in the region supplied by pudendal and genitofemoral nerve.

Pubic symphysis is a hyaline cartilage with an interposed softer fibrocartilagenous disc acting as buffer. From third trimester of pregnancy there is ligamentous relaxation and widening of sacroiliac joint and symphysis pubis probably due to hormonal influence (relaxin and progesterone). Diastasis of more than 10 mm to 13 mm is considered as sub-dislocation or a gap. A diastasis more than 14 mm is usually associated with damage of the sacroiliac joint and laceration of one or both sides of the sacro-iliac ligament [5,6].

Factors contributing for symphysis pubis diastasis are multiparity, cephalopelvic disproportion, precipitate labour, difficult labour, difficult forceps delivery and pre-existing pathology of pelvic bones [7]. The most common factors contributing for the condition is hormonal and McRoberts manoeuvre, which is generally safe but may result in pubic symphysis diastasis when there is prolonged placement of patient's legs in hyper flexed position [3,8].

Some of the differential diagnoses for SPD are sciatica, osteitis pubis, osteomyelitis, traumatic symphyseal rupture [2]. SPD is diagnosed after excluding these differential diagnoses.

Imaging is the investigation of choice to confirm diagnosis. SPD can be confirmed with simple x-ray pelvis, but the use of MRI is con-

sidered to rule out soft tissue injury, extent of sacro-iliac joint injury, sclerosis and osteomyelitis.

The treatment differs for SPD caused following vaginal delivery and that caused as a result of traumatic separation. SPD caused following vaginal delivery is rarely associated with soft tissue injury when compared to traumatic symphyseal rupture. SPD can be effectively managed with conservative management for 3-6 months. Conservative management with pelvic binders/condylar plasters, bed rest and analgesics causes a complete recovery from the condition. Other alternative treatment includes TENS (Transcutaneous Electric Nerve Stimulation), external heat or massage. Lying in hammock reduces pelvic dislocation through pressure exerted by the weight of the patient. Rarely non-traumatic SPD may require surgical correction with open reduction and internal fixation or wiring if the diastasis is greater than 2.5 cm not responding to conservative management after 6 weeks [9].

Traumatic symphyseal rupture usually require external and internal fixation along with conservative management like bed rest, hip spica casting, pelvic slings [5].

## 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 report validates that non- traumatic symphyseal rupture following vaginal delivery can be managed satisfactorily, without any operative intervention or prolonged bed rest. There is a need for awareness among medical professionals about the condition as this has increased incidence of recurrence in subsequent pregnancies.

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