CASE REPORT

Diastasis of the Pubic Symphysis as a Cause of Postpartum Pelvic Pain: A Reminder of Important Clinical Lesson

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Abstract:

Postpartum Pubic Symphysis Diastasis (PPSD) refers to an abnormally wide gap between the two pubic bones following delivery. Being an uncommon condition, it presents with pain in pubic area and groin causing inability to stand, sit and walk. We report a case of pelvic diastasis in a 30-year-old G2P1L1 following normal vaginal delivery whose definitive diagnosis was made through frontal radiograph of the pelvis. We aim to stress upon timely suspicion of this under-diagnosed condition as it helps immensely in successful recovery of these patients failing which they end in chronic pain with gait abnormality which significantly hampers the quality of life and may require corrective surgery.

Keywords: Pubic Diastasis, Pelvic Binders, Pelvic Pain, Vaginal delivery

Introduction:

Postpartum Pubic Symphysis Diastasis (PPSD) is an uncommon and underdiagnosed condition resulting in acute pelvic pain after delivery with an incidence between 1 in 300 and 1 in 30,000 pregnancies. The pain increases by applying manual pressure to the pelvis in anteroposterior and lateral directions. Elderly primigravida patients are most commonly affected and is reported less commonly in young. If diagnosed early, most cases can recover with conservative management without requiring any surgical intervention [1, 2]. Hence an early suspicion is crucial which regrettably may not be thought of due to rariety of the condition.

Case Report:

A 30-year-old parous (P2L2) woman was referred to our center with history of difficulty in walking since delivery. She had uneventful first normal delivery 2.5 years ago and an uncomplicated antenatal period during the present pregnancy. She visited a nearby government hospital for delivery where she spontaneously delivered a baby weighing 3.1 kg. However, soon after delivery she experienced severe suprapubic pain and was unable to walk. She also noticed a suprapubic swelling extending downward to right labia majora and developed high grade on and off fever which did not respond to broad-spectrum antibiotics. She was referred to us on her 7th postpartum day.

At presentation, she had severe pelvic pain that compelled her to be confined to bed; even rolling from side to side was extremely painful. General physical examination ruled out any medical cause for her fever. There was no evidence of deep vein thrombosis; no complaints of bowel bladder incontinence. Uterine involution was appropriate with no uterine tenderness and non-foul-smelling lochia ruling out postpartum sepsis. Local examination revealed swelling over mons-pubis

with extension to right labia majora (Fig 1). There was associated redness and local rise in temperature. Investigations revealed severe anemia (Hb 6.8 g/dL), elevated C-reactive protein (170.5 mg/L), and sterile urine culture. Initial general ultrasound of abdomen and pelvis ruled out intra-abdominal or intrapelvic pathology.

Fig. 1: Suprapubic Swelling

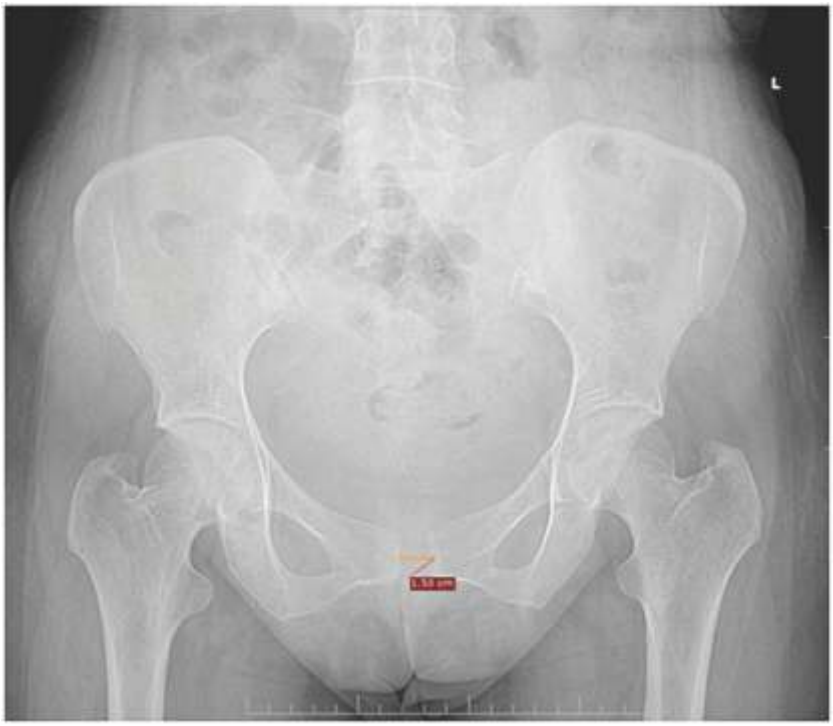

Fig. 2: X-ray Pelvis (AP View) showing Pubic Symphysis Diastasis (1.5 cm)

A working diagnosis of cellulitis was made and injectable ceftriaxone with local glycerine-$MgSO_4$ dressing and sitz bath were started. As there was no improvement, an ortho opinion was sought and spine radiograph was obtained which ruled out disc prolapse. Since all the common causes were ruled out, we suspected an uncommon local pathology and asked for X-ray pelvis and focused high frequency ultrasound examination of pubic region. Radiograph to our surprise, revealed pubic symphysis diastasis measuring about 1.5cm (Fig 2). No obvious signs of osteitis or SI joint separation detected. A pelvic binder was then applied with which she felt comfortable.

Focused ultrasound revealed two fluid cavities just above and on either side of the pubic symphysis likely due to associated surrounding soft tissue injury. Aspiration of the cavities yielded 50 mL of pus following which the swelling and fever subsided. Patient had a good recovery and could walk with the binder within few days. Complete recovery was noted within 3 months; repeat X-ray at 3 months showed significant closure of the diastasis with an inter-pubic distance of 0.77cm (Fig.3).

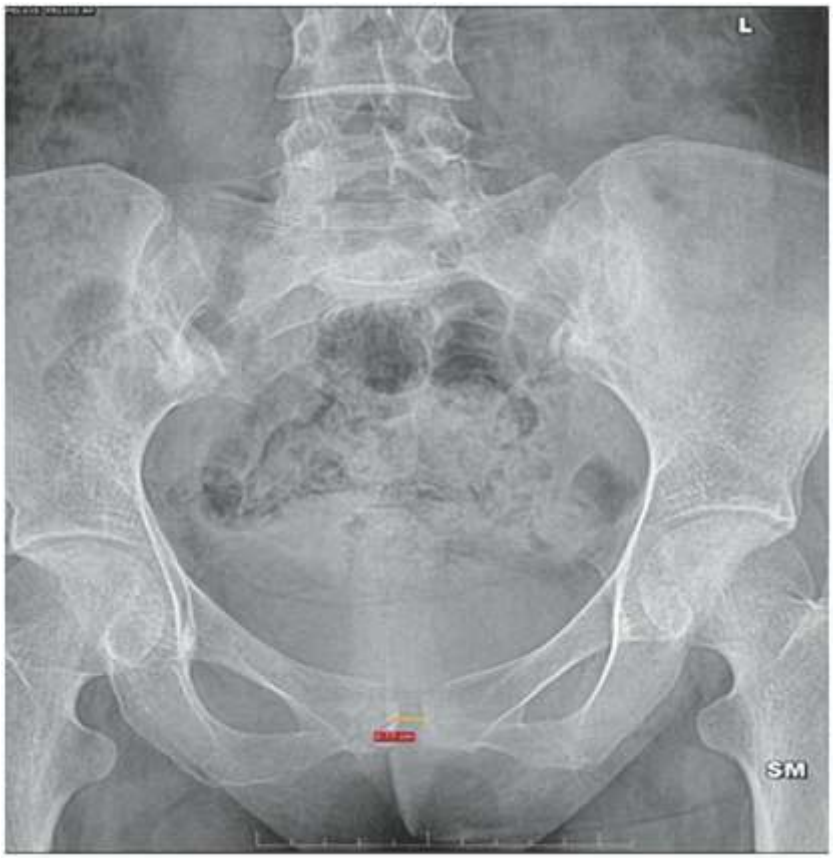

Fig. 3: Follow up X-ray Pelvis (AP View) showing Resolution of Pubic Symphysis Diastasis (0.77 cm)

Discussion:

The normal symphyseal changes during pregnancy and delivery vary among different women. Usual physiological gap is between 3 to 7 mm which increases by 2 to 3 mm during pregnancy due to influence of hormones like estrogen, progesterone and relaxin promoting laxity of the ligaments. Hence relative mobility of the SI joint and the pubic symphysis is enhanced leading to birth canal widening and easy facilitation of the delivery. These changes are reversible and restore to their normal strength and degree of separation within 6 months after the delivery [3]. Patient remains asymptomatic during these 6 months without any instability or pain while walking. A separation of more than 1 cm is considered pathological by most of the investigators [4, 5]. Associated lumbar plexopathy can occur when the symphyseal separation is more than 4 cm [4, 6].

The abnormality may result from rapid or prolonged vaginal birth or assisted forceps delivery with other factors being multiparity, cephalopelvic disproportion, prolonged hyperabduction of thighs (McRoberts maneuver) in shoulder dystocia or pre-existing pelvic bone pathologies like maternal developmental dysplasia of hip or prior pelvic trauma [6, 7]. A condition called "pelvic arthropathy of pregnancy" was described by Young *et al*. [8] that results in painful joints due to injury to symphyseal and sacroiliac joints. Such patients usually experience pain around the pubic area that spreads out to the groin and around the thighs.

Chawla *et al*. [2] in their case series highlight about the practitioners having a low suspicion for this condition and described how a late diagnosis in a case led to incomplete recovery even after 12 months of conservative treatment. Their late diagnosis however was an eye-opener which led to prompt investigation and diagnosis in the next case. Hence a high index of suspicion is essential for the successful revival of these patients.

The most common management is conservative where the patient is put on bed rest in lateral decubitus position with analgesics. In most cases, a pelvic binder is applied which helps in reduction of diastasis and recovery within 6 weeks [2, 9]. Rarely, such conservative management may fail requiring surgical correction [4]. Rommens *et al*. [9] reported 3 cases of postpartum symphyseal diastasis who did not respond to conservative treatment. These patients had pubic separation ranging from 1.5 cm to 4 cm which was stabilized with open reduction and internal fixation. A 9-cm postpartum symphysis pubis rupture was reported by Hierholzer *et al*. which was treated surgically with anterior pubic symphysiodesis and bilateral SI joints arthrodesis [10].

Conclusion

Being an uncommon complication, PPSD can be easily missed. Hence it is imperative to evaluate the patients carefully whenever there are complains of suprapubic pain with painful lower limb movements. If the symptoms do not subside within 6 weeks of conservative treatment a prompt surgical intervention with open reduction and internal fixation should be undertaken. 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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