

Diastasis of the Symphysis Pubis Following Normal Vaginal Delivery: Case Report and Review of the Literature

Normal Vajinal Doğum Sonrası Simfizis Pubis Ayırışması: Olgu Sunumu ve Literatürün Gözden Geçirilmesi

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Geliş Tarihi/Received: 05.02.2010
Kabul Tarihi/Accepted: 29.03.2010

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ABSTRACT Separation of the pubic rami or diastasis of the symphysis pubis is an uncommon and usually asymptomatic complication in obstetrics. Acute, severe pain preventing mobilization might be seen in cases with separations more than ten millimeter. Conservative treatment with absolute bed rest, analgesics and pelvic bodice is successful in almost all patients and functional recovery is excellent at 6-8 weeks postpartum. In severe cases internal or external fixation might be required. We report a case with symphyseal separation presenting with acute hip and groin pain precluding ambulation in the postpartum period after an uneventful spontaneous vaginal delivery and review the literature.

Key Words: Pregnancy; pregnancy complications; pubic symphysis diastasis

ÖZET Simfizis pubis ayırışması obstetride nadir görülen ve genellikle asemptomatik seyreden bir komplikasyondur. Simfizis ayırışmasının 10 mm'nin üzerinde olduğu olgularda akut, şiddetli, mobilizasyonu engelleyen ağrı görülmektedir. Mutlak yatak istirahati, analjezikler ve pelvik korse ile yapılan konservatif tedavi hastaların çoğunda etkili olmakta ve 6-8 haftada iyileşme gözlenmektedir. Şiddetli olgularda internal ya da eksternal fiksasyon ile cerrahi yaklaşım gerekebilmektedir. Bu yazı ile spontan vajinal doğum sonrası postpartum dönemde mobilize olmayı engelleyecek düzeyde akut kasık ve kalça ağrısı gelişen, simfizis ayırışması tanısı konulan bir olgu literatür eşliğinde sunuldu.

Anahtar Kelimeler: Gebelik; gebelik komplikasyonları; pubik simfizis diyastazi

Türkiye Klinikleri J Gynecol Obst 2010;20(6):395-8

Symphysis pubis diastasis or separation of the pubic rami in pregnancy or following vaginal delivery is an uncommon peripartum complication with an incidence varying from one in 300 to one in 30.000 deliveries.^{1,2}

Pelvic joint relaxation is a physiologic adaptation during pregnancy that enables normal vaginal delivery. Symphyseal separation not exceeding 10 mm, called to be physiologic, is usually asymptomatic and mostly returns to its previous state in the postpartum period within 3-6 months.³ However, separation of pubic rami more than 10 mm which is a pathological event may occur in pregnant women with associated factors like macrosomic fetus, small pelvis, rapid progression of the second stage of labor, rapid

descent of the presenting part and application of forces to abduct the thighs during parturition.¹ The symphysis pubis diastasis is frequently misdiagnosed both because the pain is considered to be normal during labour and also it is a rare event, therefore it is an underrecognized obstetric complication.

A case of symphysis pubis diastasis presented with severe, acute pelvic pain preventing ambulation in the puerperium is reported and the literature for that uncommon complication of parturition is reviewed.

CASE REPORT

A 32-year-old multigravid woman, gravida 3, para 2, was admitted in active labor at 35 weeks 2 days gestation. Her antenatal visits had been performed in our hospital and she had gestational diabetes which was controlled with diet and insulin. The pelvic examination on admission revealed 6 cm dilated and 80% effaced cervix with intact amniotic membranes. Her blood pressure on admission was detected as 160/110 mmHg and +3 proteinuria was found. MgSO₄ infusion at 2 g/hour was initiated to prevent eclampsia. With spontaneous contractions, she delivered a healthy boy baby, 3960 g in weight and 52 cm in height. The labour was uneventful and no complication occurred. The only remarkable point in the present case was the rapid descent of the fetal head and the relatively rapid progression of labour. Her episiotomy was repaired and MgSO₄ infusion continued for 24 hours in the postpartum period.

Twelve hours after delivery, she developed severe pelvic pain. She expressed very severe pain even at rest and causing difficulty in mobilization. At first the symptoms were attributed to severe preeclampsia associated subcapsular hematoma of the liver or a possible hematoma in the episiotomy, however her abdominal examination revealed no tenderness and the episiotomy was observed to be normal. Her abdominal ultrasound revealed no pathology. The diagnosis was only established after suspecting symphyseal diastasis, confirmed by anteroposterior pelvic X-ray which showed 12 mm separation between pubic rami (Figure 1). She was



FIGURE 1: Anteroposterior pelvic X-ray showing symphysis pubis diastasis of 12 mm in the postpartum period, 12 hours following normal vaginal delivery.

consulted with an orthopedist and external or internal fixation was not recommended, only conservative treatment with absolute bed rest on lateral position, analgesics and use of pelvic bodice were advised. After two days with this treatment, her pain improved in resting position, however continued on mobilization and she could not walk by herself. On the 6th postpartum day, she was discharged from hospital with bed rest on lateral position, analgesics and pelvic bodice. She was evaluated 6 weeks after birth and stated that her pain on movement decreased significantly and she could walk around without assistance. The patient responded to conservative management. On control radiograph taken 6 weeks after birth, the symphyseal separation of 12 mm was seen to be the same, however symptoms diminished dramatically.

DISCUSSION

Symphysis pubis is a nonsynovial amphiarthrodial joint that is situated at the confluence of the two pubic bones and reinforced by four ligaments.⁴ Symphysis pubis is 2-3 mm in width, but in pregnancy this distance may increase up to 8 mm. Symphyseal separation during pregnancy is caused by the fetal head exerting pressure on the ligaments that have been weakened or relaxed by the hormones progesterone and relaxin.⁵ The maximum physiological symphyseal separation does not exceed 10 mm and is usually asymptomatic. However, patho-

logical symphysis pubis diastasis may occur in cases with associated risk factors such as macrosomic infant, forced and rapid delivery, small pelvis, multiparity, cephalopelvic disproportion, abnormal presentation or abnormal bony pelvic structures like previously traumatized pelvic arch, congenital dysplasia, rickets, osteomalacia, chondromalacia and tuberculous arthritis.^{4,6} Manipulative vaginal delivery and fundal pressure also are associated with intrapartum symphyseal diastasis.⁷ In the present case, more than one risk factor existed which were multiparity, overweight baby and rapid delivery.

Symphyseal separation of more than 10 mm is usually symptomatic but, as it is a rare event it is frequently underrecognized. It presents with severe, acute pelvic pain located in the areas supplied by pudendal and genitofemoral nerves. The pain may radiate to the sacroiliac joints and shoot down the buttocks and thighs. In severe cases, it may be accompanied by urinary dysfunction and inability to walk. In the present case, she was initially considered of subcapsular hematoma of the liver associated with severe preeclampsia or an episiotomy hematoma. She complained of very severe pain both at rest and with movement preventing mobilization.

Peripartum pubic diastasis can be diagnosed with simple observation of clinical features. Anteroposterior X-ray of the pelvis confirms the diagnosis which shows separation of the pubic rami. In a prospective study performed by the Scriven et al,⁸ the normal physiologic change in symphysis pubis was assessed by ultrasound measurement of interpubic distance and, they showed that in the post-

partum period all the symptomatic patients had abnormal interpubic disc distance. There are also other studies that emphasize the role of both ultrasonography and magnetic resonance imaging in the diagnosis of this pathology.^{9,10} We did not use ultrasound or magnetic resonance imaging in our case, we made the diagnosis with clinical evaluation and pelvic X-ray.

Obstetricians could encounter this complication of childbirth in their own practices. Although the symptoms are dramatically severe in presentation, conservative treatment with bed rest and analgesics is helpful in almost all patients. Symptoms usually resolve at the end of the 8th week of delivery.¹¹ Surgical intervention may be required in severe cases. Operative approach was suggested to be considered in cases with symphyseal diastasis of >4 cm.¹² Surgical intervention with external or internal fixation is indicated in severe diastasis, inadequate reduction with binder, malunion, non-union or persistent symptoms.^{4,8,13,14} In the current case, the patient was pain-free and able to walk by herself six weeks after birth with conservative approach consisting of absolute bed rest at lateral position, analgesics and pelvic bodice.

In conclusion, separation of the pubic rami of more than ten millimeter in pregnancy or following vaginal delivery is a rare complication in obstetrics. Therefore, its diagnosis and management depend on anticipation of that uncommon event in a patient with an acute onset of puerperal pelvic pain. In cases of severe postpartum pelvic pain, symphysis pubis diastasis should be considered in differential diagnosis. If unrecognized, this pathology might lead to chronic pelvic pain.

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