CASE REPORT

Successful Nonsurgical Management of Peripartum Pubic Diastasis with Bladder Injury: A Rare Case Report

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Abstract

Background: Pubic diastasis is the abnormal widening of pubic bones at the symphysis pubis. It is a rare case entity seen after traumatic vaginal delivery. Here, we report a case of pubic diastasis with bladder injury after home delivery and its successful conservative management.

Case description: A 33-year-old multiparous woman, with previous two cesarean deliveries, presented to gynecological emergency center 6 days after home delivery with the inability to pass urine and rectal incontinence after unsupervised home delivery 6 days back. On examination, there was a complete perineal tear of 4 cm and a complete distortion of perineal anatomy with pubic diastasis of 5 cm. She underwent an emergency laparotomy for the repair of bladder and bowel injury. A pelvic binder was applied for pubic diastasis and the perineal tear was repaired in 6 weeks. After 6 months of use of the pelvic binder, there was no difficulty or pain in walking, squatting, or weight-bearing.

Conclusion: Pubic symphysis diastasis is a rare condition that should be kept in mind when peripartum women with excruciating pain in pubic symphysis present after a traumatic delivery.

Clinical significance: Peripartum pubic diastasis can be successfully managed conservatively avoiding the need for surgery in many cases.

Keywords: Case report, Peripartum complications, Pubic diastasis, Vaginal delivery.

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Introduction

Pubic diastasis is the abnormal widening of pubic bones at the symphysis pubis. The normal width of symphyseal joint is 4–5 mm and the separation of >10 mm is diagnostic for pubic diastasis[1] It is an uncommon condition with a reported incidence of 1 in 600–30,000 in the peripartum period. The incidence has been found to be gradually increasing.[2] Under the influence of pregnancy hormones such as estrogen and relaxin, there is weakening of ligaments, resulting in the relaxation of structures of symphysis pubis during pregnancy and in the postpartum period. Here, we present a rare case of pubic diastasis associated with bladder injury and complete perineal tear after unsupervised vaginal delivery at home.

Case Description

A 33-year-old women P3L2 presented to the gynecology emergency center 6 days after home delivery with a complaint of inability to pass urine and rectal incontinence since delivery. She underwent unsupervised home delivery 6 days back following which, she developed involuntary passage of stools through vagina. She had two live issues, both delivered by full-term lower segment cesarean section. Her antenatal period was unsupervised. She underwent spontaneous labor, lasting for 2 days, followed by vaginal delivery at home. Following delivery, she noticed passing of stools through vagina. Her general condition was fair, vitals stable, and abdomen was soft, nontender. On local examination, perineum was smeared with stools, with complete distortion of perineal anatomy (Fig. 1). Urethral opening, labia minora, and anterior vaginal wall were completely torn and replaced by unhealthy slough and necrotic tissue. On vaginal examination, complete perineal tear measuring 4 cm was seen involving the posterior vaginal wall and rectum. Fecal matter was seen coming from the vagina with no demarcation of urethral opening. X ray pelvis-AP view showed pubic diastasis of 5 cm (Fig. 1). She underwent emergency laparotomy. Preoperatively, whole of the anterior vaginal wall, urethra, and inferior 1 cm of trigone including bladder neck at the posterior wall was deficient. Repair of bladder neck and posterior bladder wall was done after desloughing, followed by complete exteriorization of ureters and anterior wall cystostomy. Loop sigmoid colostomy was also done. Regular betadine douching was done vaginally and repair of grade 4 perineal tear was performed 6 weeks later. Pelvic binder was applied post-surgery for 6 months in view of pubic diastasis, and she was started on analgesics and anti-inflammatory drugs. After 6 months of use of pelvic binder, there was no difficulty or pain in walking, squatting, or weight-bearing with significantly improved quality of life using SF36 questionnaire. Colostomy and cystotomy closure were done successfully 6 months after primary repair.

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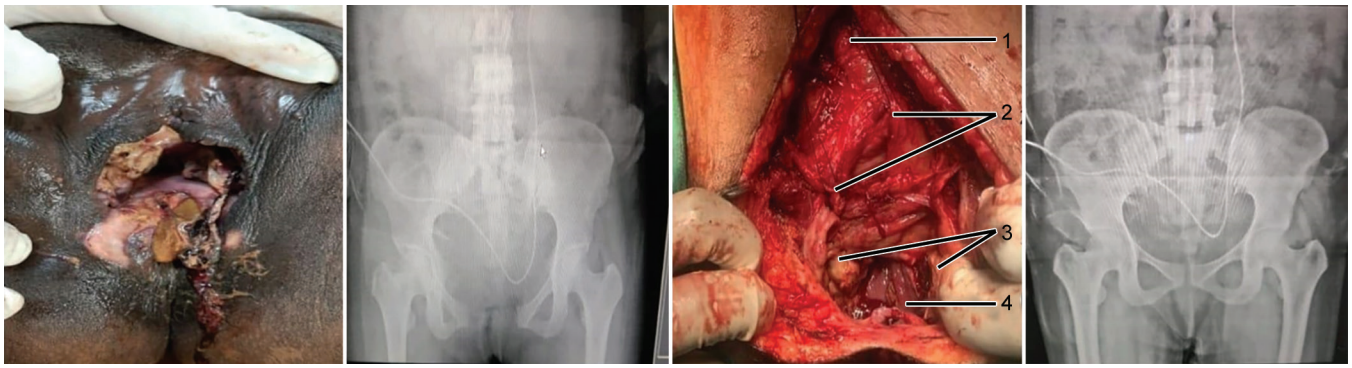

Fig. 1: Peripartum pubic diastasis with bladder injury

Discussion

Pubic symphysis is a fibrous cartilaginous disc between the surfaces of two pubic bones. It is strengthened by upper, lower, anterior, and posterior pubic ligaments. During pregnancy, there is weakening of ligaments, resulting in the relaxation of structures of pubic symphysis.

Pubic diastasis could be a total separation or instability of the symphysis without breaking the pubic bones. Nulliparity, multiple pregnancy, prolonged second stage, instrumental delivery, contracted pelvis, and cephalopelvic disproportion are considered to be the risk factors. These conditions lead to excessive stretching and abnormal widening of the symphysial joint.

Treatment options include conservative and surgical management. Conservative management involves placement of pelvic binder/condylar plasters with physiotherapy of pelvic muscles. Simultaneous use of pain relief by paracetamol or short-term NSAIDs (safe in lactation) is also important. Steroids can be administered locally in some cases. General improvement occurs in 6 weeks with near complete closure of symphysis pubis on X ray within 3 months. Prolonged bed rest should be avoided as it leads to decubitus ulcer, pneumonia, urinary tract infections, thromboembolism, joint stiffness and many other complications. In case of failure of conservative management after 6 weeks, surgery is performed, that is, open reduction and internal fixation with reconstruction plate. Alternative treatment options include transcutaneous electric nerve stimulation (TENS), external heat or massage.

There are few cases published in the literature where symptomatically improvement followed conservative management. Chawla et al. successfully managed two women with peripartum pubic diastasis of 15 mm and 16 mm conservatively, using pelvic binder and analgesics.[3]

In a similar study by Jayaram et al. conservative management was successful in reducing 25 mm of pubic diastasis with analgesics, anti-inflammatory for 5 days and pelvic binder for 6 months.[4]

Conclusion

Pubic symphysis diastasis is a rare condition that should be kept in mind when peripartum women with excruciating pain in pubic symphysis present after traumatic delivery. These cases can be successfully managed conservatively thus avoiding the need for surgery in many cases.

Ethical Approval

The study is in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any of the authors. Informed Consent was obtained from the participant. It is a non-funded study.

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