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Symphyseal Disjunction after Dystocic Vaginal Delivery: About Two Cases at the Sourô Sanou University Hospital of Bobo-Dioulasso (CHUSS)

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Abstract

Diastasis of the symphysis pubis is a rare postpartum complication. We report two cases of symphysis diastasis after dystocic delivery, in two patients who presented in the postpartum period with functional impotence, pubalgia and acute urine retention. A frontal radiograph of the pelvis confirmed the diagnosis, showing a symphyseal separation of 12 mm and 18 mm. In our case, management was mainly medical, with a favorable clinical outcome.

Keywords

Pelvis, Symphyseal Disjunction/Diastasis, Post-Partum, Burkina Faso

1. Introduction

Pathology first described in 1870 by Snelling [1] [2]. Pubic disjunction syndrome is an undervalued and poorly treated pathology that may be responsible for significant morbidity [3]. Its incidence varies between 1/300 and 1/20,000 pregnancies [4] [5] [6]. Despite having been recognized for over 130 years, there are no compliant diagnostic criteria for a precise estimate of its prevalence, and the risk factors are poorly understood [1]. The diagnosis of symphyseal disjunction syndrome is clinically evoked by insidious pain occurring in pregnant women or abruptly in the post-partum period, and may be confirmed by radiology of the pelvis showing an inter-symphyseal space greater than 10 mm [7]. The degree of distance does not correlate with the severity of the symptomatology, and in the

event of a new pregnancy there are always questions about the risk of recurrence and the mode of delivery. Initial management must be carried out early to ensure the parturient's autonomy and comfort.

We report two cases of symphyseal disjunction in the postpartum period at the CHUSS maternity hospital in Bobo-Dioulasso.

2. Observation 1

This is a 41-year-old patient, parity 8 gesture 11, 6 living children, 2 deceased, 3 abortions with a history of dystocic delivery 3 years ago. On November 25, 2022, she consulted the Toussiana medical center for pelvic pain with uterine contractions in a pregnancy estimated to be at term, and was diagnosed with fetal-pelvic disproportion plus acute fetal distress. This necessitated evacuation to the Do medical and surgical center for further treatment. Delivery was dystocic, with a fresh stillborn male, birth weight 3390 g, height 50 cm, head circumference 33 cm, chest circumference 34 cm, placenta weight 550 g, cord length 47 cm. The postpartum period was marked by the onset of functional impotence of the lower limbs, associated with acute urine retention on the second postpartum day. This prompted her evacuation to Sourô Sanou University Hospital for further treatment. On admission, our examination revealed: Good general condition, WHO stage III, clear consciousness, conjunctiva normally colored anicteric. Blood pressure 120/70 mmHg, pulse 75 beats/min, temperature 36.5˚C. Normal breasts, uterus well retracted at umbilicus, vulva stained with minimal bloody lochia, cervix and vaginal walls normal on speculum. Impaired motor skills in the pelvic limbs, with motor strength rated at 3/5 on the right and 1/5 on the left. Sensibility preserved in both pelvic limbs; exquisite pain on palpation of the pubic symphysis. A suspicion of symphyseal disjunction was raised, confirmed by a frontal radiograph of the pelvis (**Figure 1**) showing a symphyseal separation of 12 mm. The patient was rested on a hard surface, treated with analgesics (paracetamol 1 g/8 h), diclofenac suppository (1 suppository every 12 hours) and an indwelling bladder catheter. The evolution was marked by a progressive regression of functional impotence, and she was discharged after 12 days of hospitalization. A check-up one month later was unremarkable and the patient was able to resume her activities.

3. Observation 2

This is a 25-year-old patient, parity 3, gesture 3; three living children, with a history of trauma to the pelvis early in pregnancy (fall with landing on the pelvis). On October 22, 2023, she consulted the Valley du Kou health and social promotion center for abdominal and pelvic pain in a pregnancy estimated to be at term; she gave birth the same day to a newborn female, APGAR score 9-10-10, birth weight 3100 g, cranial perimeter 31 cm, thoracic perimeter 32 cm, height 46 cm, placenta weight 500 g, cord length 58 cm.

The evolution was marked by the onset of pelvic pain with relative functional

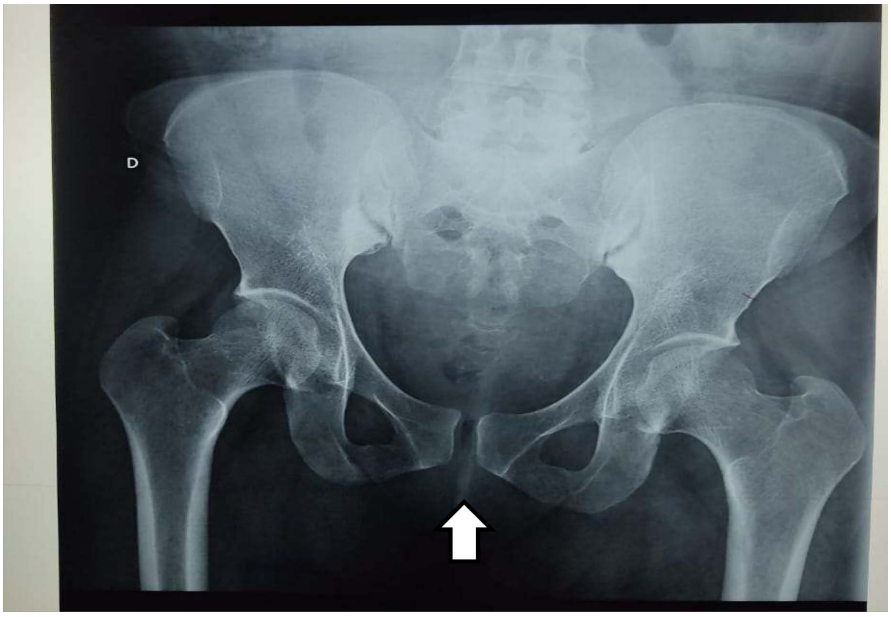

Figure 1. Frontal pelvic X-ray showing symphyseal disjunction complicating dystocic delivery in a large multiparous woman.

impotence of the pelvic limbs on the 8th post-partum day, which motivated consultation at the Kou Valley health and social promotion center, from where she was referred to the Sourô Sanou University Hospital in Bobo-Dioulasso for better care. On admission, the examination noted: Good general condition, normal consciousness, normo-colored anicteric conjunctivae. Blood pressure 120/80 mmHg, pulse 80 pul/mm, temperature 37.6˚C and respiratory rate 20 cycles/mm. A well involuted uterus, a clean vulva, with speculum: the cervix and vaginal walls are normal in appearance; vaginal touch has not been performed. Examination of the musculoskeletal system revealed that the patient was able to stand upright, with walking difficult but possible, and no motor or sensory disorders. Pain was noted on mobilization of the pelvis, with exquisite pain on palpation of the pubic symphysis. The newborn was unremarkable. The hypothesis of symphyseal diastasis was raised and confirmed by a frontal radiograph of the pelvis showing a symphyseal gap of 18 mm (**Figure 2**). Functional treatment was indicated, with bed rest for 3 weeks. The patient was started on analgesics, paracetamol 1 g every 8 hours, followed by rest on a hard surface. The patient was discharged after 4 days in hospital, with follow-up visits. After a month, her progress was favorable, and she had returned to her normal daily activities.

4. Discussion

Non-pregnant women have a symphysis pubis distance of 4 to 5 mm, which normally widens during the last trimester of pregnancy to an average of 7.7 mm with a range of 3 to 20 mm; 24% of women have a deviation of 9 mm [7]. The purpose of these changes is to facilitate the passage of the fetus into the genital tract, and therefore in pregnant women when this gap is greater than 10 mm it is

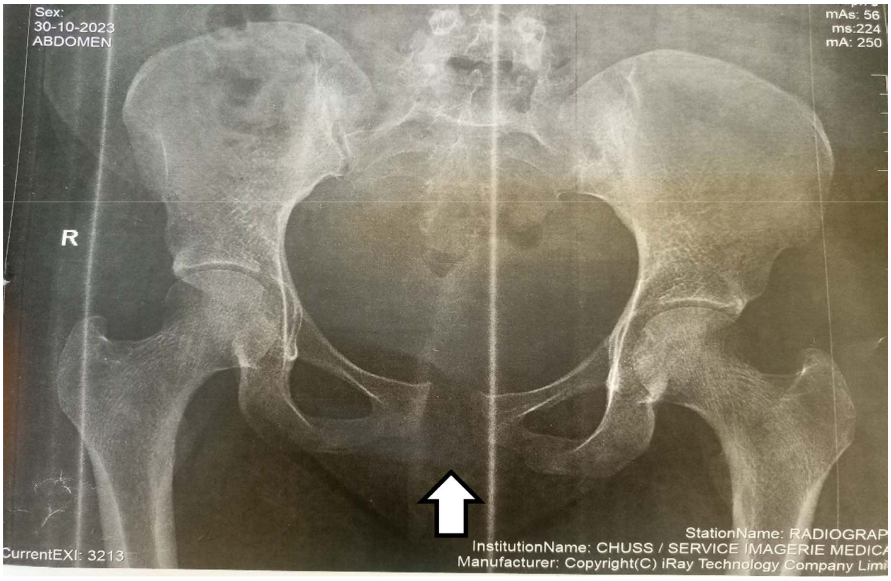

Figure 2. Frontal X-ray of the pelvis showing a symphyseal disjunction complicating a dystocic delivery.

called symphysis pubis diastasis, with the risk of partial or total rupture of the symphysis pubis [1]. The etiologies of this condition remain poorly understood, although several authors have reported the frequent association of symphyseal disjunction and certain risk factors, notably fetal macrosomia, extraction maneuvers, joint pathologies and trauma to the pubic joint [8] [9], multiparity, rapid expulsion, shoulder dystocia, twinhood́ [10] [11]. Degenerative factors are also implicated, as well as physically intense work, poor posture, lack of exercise, weight gain, shoulder dystocia [8]. In the first observation, the patient had risk factors such as high multiparity, gestité 11 parity 8, and a history of dystocic delivery 3 years ago. In addition, the second patient had a history of trauma to the pelvis in early pregnancy, following a fall with landing on the pelvis. The diagnosis was based on the symptoms reported by the patient and the clinical examination. Typical symptoms include pubic symphysis pain with inguinal radiations, associated with sacroiliac joint pain [12]. Oedema of the symphysis and urinary complications (bladder injury, haematoma, incontinence or urinary infection) may also occur in cases of severe disjunction [12]. In our case, the clinical symptomatology was marked by pain at the pubic symphysis and functional impotence of the pelvic limbs. However, it was complicated by acute urine retention in the first patient to undergo bladder catheterization. The paraclinical diagnosis was based on radiology of the front pelvis showing an inter-symphysis space greater than 10 mm [12]. X-rays of the front pelvis performed on the patients showed a diastasis of the pubic symphysis evaluated at 12 mm and 18 mm. Early initial management is medical, with a combination of oral analgesia, rest and physiotherapy [13], which was the case in our observation marked by a favorable evolution.

Regular analgesia in the form of paracetamol and codeine can be prescribed,

with close monitoring of efficacy and side-effects, and there are reported cases of epidurals based on morphinics, bupivacaine and fentanyl used for 24 to 72 hours to stop the vicious circle of pain and muscle spasms. Intra-symphyseal injection of steroids and local anesthesia has also been reported with variable results. Bonnin *et al*. point out that infiltration is an interesting therapeutic alternative for relieving severe pain [1].

Surgical treatment is indicated when the separation is greater than 2.5 cm. According to the literature, Kharrazi *et al*. and Dermikale I. *et al*. respectively suggested surgical treatment from a separation of 4 and 3 cm, with satisfactory results and rapid functional and general recovery [6] [12] [14].

None of our patients had a pubic symphysis diastasis greater than 2.5 cm, so treatment was medical, with a favourable evolution marked by a progressive resumption of walking and daily activities.

5. Conclusion

Symphyseal disjunction, an under-appreciated and often mismanaged condition, is a rare postpartum complication. Diagnosis is easy in the presence of pubalgia and functional impotence, and is confirmed by an x-ray of the front pelvis. After treatment, evolution is often favourable.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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