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An Uncommon Case of Pregnancy in a Woman with Bladder Exstrophy

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Case Report

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Abstract: Bladder exstrophy is an anterior midline defect. Women with bladder extrophy are fertile and able to have children without this disease. However, Patients undertaking pregnancy after surgical repair of such an anomaly are rare. Pregnancy is often complicated. We report in this work the case of a 24-year-old pregnant patient, operated at birth for bladder extrophy, presenting at 28 weeks of amenorrhea for premature rupture of membranes with uterine prolapse.

Keywords: Bladder extrophy, pregnancy, premature rupture of membranes, uterine prolapse.

INTRODUCTION

Bladder exstrophy is a rare anterior midline defect [1]. It is associated with complex genitourinary malformations, requiring difficult surgical treatment. Pregnancy may be complicated by recurrent urinary tract infections, malpresentation, preterm labour and genital prolapse [2]. Due to the rarity of this condition, there is limited literature regarding management during pregnancy.

We report in this work the case of a 24-year-old pregnant patient, operated at birth for bladder extrophy, presenting to obstetric emergencies at 28 weeks of amenorrhea for premature rupture of membranes with uterine prolapse.

CASE PRESENTATION

A 24-year-old pregnant woman (gravida 1, para 1), operated for a bladder extrophy at 40 days of life, with a pregnancy estimated at 6 months (date of the last rules imprecise), admitted to the emergency for premature rupture of membranes.

General examination found a weight of 39kg for a height of 1.52 m, a blood pressure of 120/70 mmHg, a pulse of 75bpm, patient was afebrile with conjunctiva slightly discolored.

Gynecological examination revealed a scar on the pubis (surgery of bladder extrophy), no umbilicus; with a pubic diastasis. Examination also found a uterine prolapse third degree with an infected cervix and clear amniotic fluid, clitoral bifurcation with a very thin perineum (Figure-1).

Fig-1: Photography showing uterine prolapse third degree with an infected cervix and clitoral bifurcation

Obstetric examination did not involve uterine contractions, uterine height was 20 cm, and fetal heart sounds were present and regular.

Biologically, the blood count showed anemia with a hemoglobin level of 6.6 g/dl, leukocytosis with a leukocyte count of 22640/mm^3 and thrombocytosis with a platelet count of 850000/mm3, C reactive protein (CRP) was 82.70. Cytobacteriological examination of the urine was negative; culture of vaginal sampling was also negative.

Obstetric ultrasound found mono-fetal pregnancy with seat presentation, positive cardiac activity, decreased amniotic fluid. Measurements corresponded to 27-28 weeks of amenorrhea (WA) with an estimated fetal weight of 1400g. The examination also noted severe pulmonary hypoplasia. In view of this assessment, the patient was put on amoxicillin antibiotic 1g x 3 / day with a vaginal cleansing and iron supplementation.

The exploration of patient's urinary tract was performed by renal ultrasound and CT-scan. This assessment found a bilateral uretero-pyelocaliciel dilatation, a right ureter postero-anterior path, the distal tip being plated between uterus and anterior abdominal wall with absence of adequate opacity of the left ureter which has a short path with colic stoma, the bladder box was empty (Figure-2).

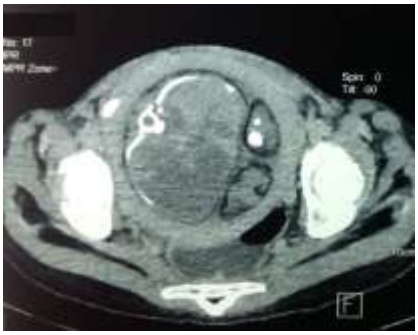

Fig-2: Axial CT slice showing a right ureter postero-anterior path, the distal tip being plated between uterus and anterior abdominal wall

It was decided to monitor temperature, uterine contractions, color of the amniotic fluid, and biology analyses, with extraction at 36 WA.

Evolution was marked by ascension of CRP and a fetal death in utero occurred at 29 SA. Childbirth was performed vaginally after cervical incision. Manual reduction of uterine prolapse was done (Figure-3).

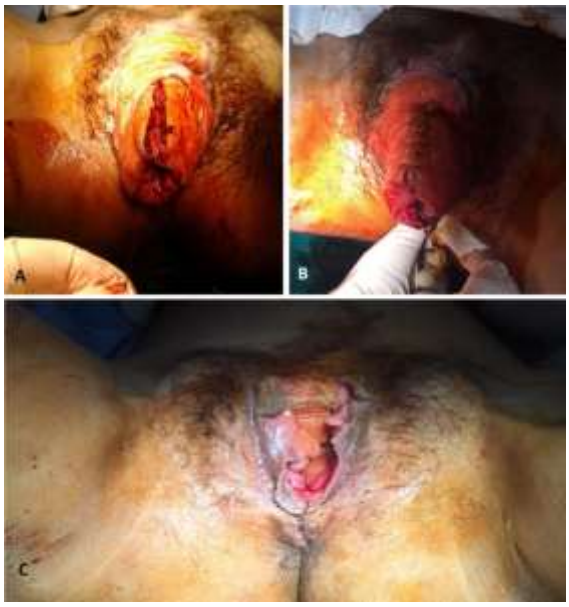

Fig-3: Photos showing reduction of uterine prolapse. A. Cervical incision. B. Cervical suture. C. Manual reduction of the uterine prolapse

DISCUSSION

Bladder exstrophy is a rare congenital anomaly that is often accompanied by multiple malformations [1], which there is a defect in the closure of the lower abdominal wall and exposure of the bladder mucosa, ureteral orifices, bladder neck, and urethra to outer abdominal wall [2].

Obstetric complications include infection, prematurity, placental abruption, malpresentations and genital prolapse [3]. In our case, infection, prematurity and genital prolapse were presents.

Urinary tract infection is very common due to the defects of abdominal wall and bladder wall. Bladder etrophy can also lead to stricture of uretero-vesical orifices, as it did in our case, which causes uretero-vesical obstruction followed by pyeloureterectasis and hydronephrosis [4].

Pelvic organ prolapse is seen in 18% of cases [5]. The defining difference in the bladder extrophy population is the accelerated pace of pelvis organ prolapse development, often independent of parity [6].

The rate of preterm delivery is as high as 29% [7] and it constitutes a major neonatal risk. Because of these multiple factors, pregnancy is very high risk as well as precious in these cases. Preconceptional renal evaluation should be done. These cases should be managed at tertiary care centers [7].

Pregnancy management of patient with bladder extrophy includes broad-spectrum antibiotic in combination with removal of the obstruction [8]. Often, due to the non-closure of the pubic symphysis, vaginal birth is readily achievable in these patients [9]. However, it is generally accepted currently that bladder extrophy patients undergo planned cesarean section delivery with engagement of a multi-disciplinary team including reconstructive urology [10].

CONCLUSION

Pregnancy in women with bladder extrophy is high risk for both mother and baby. For better pregnancy outcome, interdisciplinary team work and operative delivery should be planned; reconstructive surgery should also be offered to improve quality of life.

REFERENCES

1. Muecke, E. C. (1964). The Role of the Cloacae Membrane in Exstrophy: The First Successful Experimental Study. *The Journal of urology*, *92*(6), 659-668.
2. Giron, A. M., Passerotti, C. C., Nguyen, H., Cruz, J. A. S. D., & Srougi, M. (2011). Bladder exstrophy: reconstructed female patients achieving normal pregnancy and delivering normal babies. *International braz j urol*, *37*(5), 605-610.
3. Catti, M., Paccalin, C., Rudigoz, R. C., & Mouriquand, P. (2006). Quality of life for adult women born with bladder and cloacal exstrophy: a long-term follow up. *Journal of pediatric urology*, *2*(1), 16-22.
4. Kaufman, M. R. (2018). Pelvic Organ Prolapse and pregnancy in the female bladder exstrophy patient. *Current urology reports*, *19*(3), 18.
5. Bartelink, L. R., Feitz, W. F., Kluivers, K. B., Withagen, M. I., & Vierhout, M. E. (2011). Surgical treatment of uterine prolapse in women with bladder exstrophy: report of two cases with modified Prolift™ procedure. *International urogynecology journal*, *22*(7), 889-891.
6. Mathews, R. I., Gan, M., & Gearhart, J. P. (2003). Urogynaecological and obstetric issues in women with the exstrophy-epispadias complex. *BJU international*, *91*(9), 845-849.
7. Greenwell, T. J., Venn, S. N., Creighton, S., Leaver, R. B., & Woodhouse, C. R. J. (2003). Pregnancy after lower urinary tract reconstruction for congenital abnormalities. *BJU international*, *92*(7), 773-777.
8. Wu, S., Sun, J., Lv, H., Zhang, Y., Shang, H., Zhang, H., & Belinson, J. L. (2018). Pregnancy in a woman with untreated bladder exstrophy: a case report. *Case reports in women's health*, *17*, 11-13.
9. Lachica, R., Chan, Y., Uquillas, K. R., & Lee, R. H. (2017). Vaginal delivery after Dührssen incisions in a patient with bladder Exstrophy and uterine prolapse. *Obstetrics & Gynecology*, *129*(4), 689-692.
10. Dap, M., Larmure, O., Morel, O., & Lemelle, J. L. (2017). Pregnancy outcomes among patients with prior bladder exstrophy. *International Journal of Gynecology & Obstetrics*, *139*(3), 368-369.