



A Case of Prolonged Postpartum Urinary Retention: An Obstetrician's Dilemmas'



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Abstract

Post-partum retention of urine is not uncommon, often being attributed to adaptive changes during childbirth, bladder wall edema and perineal & pudendal nerve damage. The exact incidence of this problem is not well known. Risk factors like prolonged and obstructed labour, instrumental deliveries are well known risk factors for causing postpartum urinary retention. We report here a case of prolonged post-partum urinary retention which developed without any of these risk factors. There is no consensus for uniform and optimal management of these cases which poses dilemmas to the treating obstetrician.

Keywords: Urinary retention; Post-partum retention

Introduction

Inability of the urinary bladder to empty after delivery is called as post-partum retention of urine [1]. It could be overt or complete if the women fails to pass urine within a few hours (generally 6-8 hours) of delivery; or it could be incomplete when a women fails to completely evacuate the bladder and has significant post-void urine of >150ml [1,2]. Urinary retention in the immediate post-partum period can occur in as high as 37% [3], but prolonged retention is rare, which may last for more than 7 days, incidence reported to be 0.05 -0.06% [4]. We report here a case of such a prolonged post partum urinary retention. Prognosis is generally good.

Case

A 24 year primi-gravida was admitted at term pregnancy in early labour; she progressed well and delivered within 7 hours. She had a full term vaginal delivery with episiotomy of a healthy baby of 2.8Kg, baby cried immediately after birth. Blood loss at delivery was within normal limits and medio-lateral Episiotomy was repaired with chromic catgut in routine way. She started breast feeding within 2 hours of birth, and was encouraged to pass urine. She could not pass urine even after 8 hours and bladder was distended, so a K-90 catheter was inserted. Episiotomy was inspected to look for hematoma, very tight sutures or peri-urethral tears. She was found to have a very small hematoma of approximately 3x3cm size at the episiotomy site. Rest of the examination was within normal limits. Hematoma was evaluated, thinking it to be a cause of urinary retention, it was evacuated and the sutures were reapplied. She was again encouraged to pass urine but could not do so, hence a self-retaining Foleys catheter was inserted. Her urine routine and microscopy, urine culture, blood urea, serum creatinine and blood sugar were sent, and reports were within normal limits. The

catheter was removed after 48 hours, but had to be re-catheterised as she again developed retention. Her local examination was within normal limits and she did not report significant pain at the perineal /episiotomy site. She was started on Bethanechol tablets. Clamping of catheter was started from Day 4, but she was not able to perceive the bladder sensation. Vulval examination was repeated and there was no evidence of tear or infection at urethra, clitoris or any other area; episiotomy was also healthy. Her abdomino-pelvic Sonography was within normal physiological limit, complete blood count and urine exam were also in normal range. Urology consultation and then cysto-urethroscopy was done, which was normal. Clamping of catheter was re-started from day 6, but she could feel the sensation very minimally. The patient insisted for catheter removal on Day 7, so it was removed. 5 hours later she again developed retention, so Foley's catheter was reinserted and she was discharged on request with catheter in situ. She came for follow up in OPD and self-retaining catheter was removed; she could pass urine minimally and had a full bladder which was palpable abdominally. She was taught self-catheterisation with aseptic measures and pelvic floor exercises. MRI to look for any spinal cord problem and Urodynamic studies were also planned, which she did after having similar opinion from other urologists. Her MRI was normal and urodynamic studies showed detrusor hypo-activity and no filling sensation with 750ml.

The patient came back after 2 weeks, her episiotomy had healed well. She was doing self-catheterisation, once or twice daily. The frequency of self-catheterisation has decreased significantly. Her repeat urine test (microscopy and culture) was normal. At 4 weeks she reported to have a completely normal micturition pattern.

Discussion

Continent mechanism in a non-pregnant women is well known, also incontinence related to pregnancy and parturition have also been researched; but the factors responsible for prolonged post partum retention is not understood well. Changes in the pelvic organs during labour and delivery is well understood in the form of detrussor hypertrophy, oedema to the bladder walls, damage to pudendal and perineal nerves. It may causes voiding dysfunction in some women, which is generally for a short time. Instrumental delivery- forceps or vaccum, epidural analgesia, prolonger second stage of labour, some drugs eg-Morphine are more commonly associated with voiding dysfunction [5,6]. Nulli-parity is also considered a risk factor for prolonged voiding dysfunction in some studies [1,2]. Our patient was a primi-gravida which was the only risk factor present in our patient. She also had a small hematoma at the episiotomy site; but it is unlikely that such a small hematoma, without any significant pain could have urinary retention. We could not identify any other risk factor in our patient which might have caused prolonged post partum urinary retention.

There is Lack of standardised management of prolonged post partum urinary retention. Early diagnosis may help in early recovery, possibly by preventing further distention. Adequate pain relief, early ambulation and feeding may further help in general well-being and hence in recovery [7]. Early catheterisation is helpful in preventing further distention and may be kept for 48 hours for adequate bladder rest. It is important to rule out urinary and local pelvic infections. MRI of spine may be able to detect occult spinal and neurological problem. Urodynamic studies may also be helpful in some cases. Majority patients of voiding dysfunction recover in 2 weeks' time, but some may take longer, similar to our patient. However complete recovery is possible by 6 weeks [3,5]. Earlier report of supra-pubic catheterisation are there, but is not preferred nowadays. Post partum women has to take care of her new-born too and she may find it difficult to manage her daily activity with the supra-pubic catheter in-situ. Carley ME et al. [6] in their study found that, in overt post partum urinary retention resolution time was 48 hours in 45.0% of patients and 72 hours in 29.4%, and 25.5% had required intermittent self-catheterisation for up to 45 days [7,8].

Post partum exercises of pelvic floor muscles may be helpful in regaining the bladder and urethral tone as well in strengthening the pelvic muscles. This should be taught to all post partum mothers to avoid long term urological problems.

Post partum mothers are likely to be under stress due to changed physiology and are at a risk for development of post partum psychological problems. Our patient was very much dissatisfied with the treatment at the hospital in spite of giving her the best available care.

The dilemmas we faced in this case were-

1. What is the standard treatment for such a case of prolonged post-partum urinary retention?
2. Was the small episiotomy site hematoma responsible for the urinary retention?

3. What factors are responsible for post-partum urinary retention in a woman who had a normal well supervised delivery at a tertiary hospital?

4. What precautionary measures will be helpful in preventing this condition in other labouring women?

Many of our questions are still unanswered; but we realised while managing this case post partum pelvic floor exercises and support and care from the treating doctor and family are helpful in overcoming this perplexing condition. Bethanechol is recommended for prolonged retention. It is not well known if it is excreted in breast milk, so the infant should be monitored for cholinergic side effects.

There are many unanswered questions -what should be the mode of delivery in next pregnancy? What are the chances of recurrences? We expect with expanding knowledge these questions will be answered.

Lessons learnt

1. Local examination and providing privacy if the first step in management
2. Ruling out genito-urinary infections, and anomalies
3. Exclude cerebro-spinal causes, and other voiding dysfunction; consultation with urologist is helpful in planning treatment.
4. Intermittent self-catheterisation, perineal and pelvic floor exercises must be taught
5. Prognosis is good
6. Conclusion

Optimal Management of post partum urinary retention is still debatable, it is important to rule out other causes of urinary retention. If no cause is found prolonged catheterisation may be helpful with slight increased risk of urinary tract infection. Aetiology of prolonged retention is not well understood in a low risk primipara who had a supervised delivery in a medical college without any significant problem. Pelvic floor exercises may be helpful in gaining the lost tone of pelvic floor muscles. Prognosis is good as most patients completely recover.

References

1. Mulder F, Schoffelmeer M, Hakvoort R, Limpens J, Mol BW, et al. (2012) Risk factors for postpartum urinary retention: A systematic review and meta-analysis. *BJOG* 119(12): 1440-1446.
2. Yip SK, Sahota D, Pang MW, Day L (2005) Postpartum urinary retention. *Obstetrics & Gynecology* 106(3): 602-606.
3. Humburg J, Troeger C, Holzgreve W, Hoesli I (2009) Risk factors in prolonged postpartum urinary retention: An analysis of six cases. *Arch Gynecol Obstet* 283(2): 179-183.
4. Groutz A, Gordon D, Wolman I, Jaffa A, Kupferminc MJ, et al. (2001) Persistent postpartum urinary retention in contemporary obstetric practice. Definition, prevalence and clinical implications. *J Reprod Med* 46(1): 44-48.

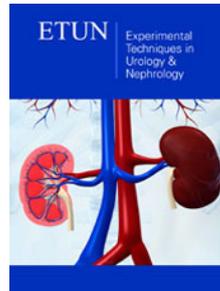
5. Yarci GURSOY A, Kiseli M, TANGAL S, CAGLAR GS, HALILOGLU AH, et al. (2015) Prolonged postpartum urinary retention: A case report and review of the literature. *S Afr J Obstet Gynaecol* 21(2): 48-49.
6. Carley ME, Carley JM, Vasdev G, Lesnick TG, Webb MJ, et al. (2002) Factors that are associated with clinically overt postpartum urinary retention after vaginal delivery. *Am J Obstet Gynecol* 187(2): 430-433.
7. Humburg J, Holzgreve W, Hoesli I (2007) Prolonged postpartum urinary retention: The importance of asking the right questions at the right time. *Gynecol Obstet Invest* 64(2): 69-71.
8. Mulder FE, Oude Rengerink K, van der Post JA, Hakvoort RA, Roovers JP (2016) Delivery-related risk factors for covert postpartum urinary retention after vaginal delivery. *Int Urogynecol J* 27(1): 55-60.



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