

SUCCESSFUL REPAIR OF IATROGENIC CYCLICAL MENOURLIA: A CASE REPORT

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INTRODUCTION

The term menouria was coined by Youssef in 1957 to describe vesical menstruation, an important feature of vesico-uterine fistula complicating lower uterine segment caesarean section¹. It is characterized by cyclical haematuria. The entity though rare, is important in obstetrics and urology². Menouria is a typical presentation of vesical menstruation following the formation of a vesico-uterine fistula in pre-menopausal women, and has been reported in association with lower segment caesarean section. It has been confused with vesical endometriosis, schistosomiasis, carcinoma and other causes of total haematuria.

The diagnosis is mainly from the history of cyclical haematuria following a lower segment caesarean section, clinical evaluation, high index of suspicion and a simple investigation and confirmation at operation. The treatment of a vesico-uterine fistula is by surgical repair³, preferably in conjunction with a urologist.

We report a rare case of menouria secondary to emergency lower segment caesarean section for prolonged obstructed labour, successfully treated by surgery in our unit and suggest ways of preventing its occurrence.

CASE REPORT

Mrs. WA was a 38 year para 1+3, 1 alive; and a primary school teacher. She was self referred on 7th September 2006 to the hospital with the complaint of cyclical haematuria for 4 years and 8 months.

The problem started following prolonged obstructed labour in the village for about 18 hours for which she was taken to a general hospital where she had an emergency caesarean section performed on 20th December 2001.

She commenced menstruation about 6 weeks postpartum after the caesarean operation. She noticed that apart from the sanitary pads used to contain the menstrum being stained with blood, she also observed that she had total haematuria.

The urine was completely blood stained and was also associated with multiple small blood clots. The amount of menstrual blood that was passed through the urine was considered more than the vaginal bleeding by the patient. The first indication that she was going to menstruate was the noticing of blood in urine (menouria), followed by vaginal bleeding the following day. On the other hand, the haematuria disappeared before the vaginal bleeding in each menstruation. She reported back to the hospital to inform the doctor but was assured that it may resolve. The problem however persisted, as she had cyclical haematuria every time she was menstruating. She was not incontinent of urine.

She left the hospital for a private clinic with the problem where a repair was attempted in March 2005. Soon after the repair, she continued to have cyclical haematuria the following menstrual period. She was then placed on hormonal drugs to induce secondary amenorrhoea to resolve the problem but on discontinuation of the treatment and resumption of menstruation the problem also re-occurred. She continued to live with the problem until she met a friend who encouraged her to get to the teaching hospital.

She was seen at the gynaecological clinic on the 7th September 2006 with the complaint. Her last normal menstrual period had started on 5th September 2006, and she was still menstruating at the time she was seen in the clinic.

She was evaluated and found to be a young woman who was worried but otherwise well. Her vital signs were normal and within normal limits. Abdominal examination revealed a mid-line sub-umbilical incision scar. There were no areas of tenderness or organ (liver, spleen, and kidneys) enlargement. Both speculum and digital pelvic examination showed no abnormality. Voided urine by the patient confirmed total haematuria.

A diagnosis of iatrogenic cyclical haematuria (menouria) was made. In view of the past history of an attempt at repair, which from the hindsight failed, a differential diagnosis of renal tract (kidney, ureteric, bladder wall or urethral) endometriosis was entertained.

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She was referred to the urologists for cystoscopy to evaluate the renal tract for the source of the bleed. She had the cystoscopy done on 24th march 2007 and the following were the findings: An indurated area at the superior aspect of the posterior bladder wall which was hard, with the bladder mucosa thrown into folds around the area, making it to appear as if there was a pouch between it and the normal bladder tissues. The area looked paler than the surrounding bladder mucosa and did not bleed easily on touch. There were no other haemorrhagic spots seen within the bladder mucosa (the remaining bladder mucosa was normal). An impression of utero-vesical fistula was made.

She was then referred back to the gynaecological clinic with the above mentioned findings. She was then booked for laparotomy with a view of confirming a vesico-uterine fistula and repairing it. The surgery was scheduled 9th May 2007.

She was admitted to the gynaecological ward on 8th May 2007 and evaluated for her fitness for surgery. Blood and urine investigations were done and found to be normal. Two units of compatible blood were also grouped and cross-matched. Her last menstrual period was on 21st April 2007. The operation and repair was done on 9th May 2007.

Procedure: The bladder was dissected off the uterus by sharp dissection freed and mobilized away from the uterus. Allis forceps were applied to the edges of the freed bladder wall and inspected. The bladder was then closed in two layers using an atraumatic chromic catgut number 2/0. A figure of eight stitch was then applied to the anterior aspect of the uterus at the site of the fistula. Haemostasis was meticulously achieved, and the anterior abdominal wall was repaired using mass closure. The estimated blood loss was about 300 ml. The immediate post-operative condition of the patient was satisfactory.

Operative findings: A utero-vesical fistula at the caesarean section scar in the lower uterine segment. The bladder was morbidly adherent to the anterior wall of the uterus, with a fistulous tract connecting the posterior wall of the bladder with the anterior wall of the uterus. This was clearly defined by methylene blue dye instilled into the bladder intra-operatively through a Foleys catheter. Both the fallopian tubes, the ovaries and fundus of the uterus were normal. The pouch of Douglas was free of adhesions or any pathology.

The urinary catheter was left to drain urine continuously for 8 days, followed by bladder training for 48 hours before it was removed after a total of 10 days. She commenced menstruation on 16th May 2007, while still on admission and the urine remained free of blood. She was discharged in good health and has been seen in the gynaecological clinic with no recurrence of cyclical haematuria (menouria).

DISCUSSION

A case of cyclical haematuria (menouria) is reported in a 38 year old woman following an emergency caesarean section for prolonged obstructed labour. This is an un-common condition which brings the gynaecologist and urologist together. This was not the classical Youssef syndrome. Youssef syndrome is characterized by a combination of menouria, vaginal amenorrhoea and the absence of urinary incontinence¹. This patient had menouria, was continent of urine but had vaginal menstruation. The clinical presentation suggested an iatrogenic cause for the menouria. Cystoscopy was employed to confirm the vesico-uterine fistula and exclude renal tract endometriosis and other causes of haematuria. Cystoscopy has been a diagnostic test for menouria for many years^{3,4}.

Over the years, other diagnostic tests have been abandoned in favour of cystoscopy and where feasible, contrast radiography^{3,4} is also utilized. Whatever the case, high index of suspicion and simple diagnostic tests must be considered, particularly where a cystoscopy is not feasible or unavailable to confirm the diagnosis. In this case, the index of suspicion was high and cystoscopy was used essentially to confirm the diagnosis and to rule out other causes of the menouria.

This case was rather bizarre because an attempt had been made to repair the defect which from a hindsight failed. This attempt prompted the suspicion of other possible causes of the menouria like endometriosis of the renal tract. This was a possibility³, and heightened our desire to have cystoscopy performed to exclude this differential diagnosis.

This patient had no urinary incontinence. This could be explained by the fact that the resting bladder tone of less than 10 cm of water (7.4 mmHg)⁵ is lower than the resting uterine tone of 10.9-16.3 cm of water (8-12 mmHg)⁶, and therefore blood from the uterine cavity could find its way to the bladder, but urine could not pass to the uterus through the fistula to cause incontinence.

The cause of the problem could have been the prolonged obstructed labour. This caused a distended and edematous bladder which obstructs the utero-vesical part of the lower uterine segment during caesarean operation. The posterior bladder wall was therefore taken with a bite by the suturing needle during the repair of the lower uterine segment after the delivery of the infant. In this case the caesarean section was a difficult procedure for an inexperienced doctor in the general hospital. The operative delivery of such cases of obstructed labour should be performed by the most senior medical officer at the centre to prevent bladder injury, or stitching it to the incision site in the lower uterine

segment.

Before the caesarean operation, the distended bladder is emptied, if possible, by a Foleys catheter. If this is not possible, then it is drained after the delivery of the fetus, or decompression of the uterus.

The use of 'stay suture' one to two centimeters below the proposed site of incision, after reflecting the bladder, in the inferior part of the lower uterine segment would have been an appropriate step in this procedure. This identifies the inferior part of the uterus to be picked up for repair of the uterine wall, thus avoiding picking up the bladder with a stitch during repair and stitching it to the uterine wall.

The timely and appropriate use of the Doyen retractor to protect the bladder from injury is also important. The bladder is safely retracted away and protected from the operating field and thus the needle does not get to pick it to be stitched onto the anterior uterine wall.

Another option for the doctor was to refer the patient to a higher referral centre if he had insufficient experience to handle such a case, or call on his senior to assist if he had not got the competence to do the case.

In conclusion, menouria, a complication of caesarean section could occur but it is rare and largely preventable. The presentation is cyclical haematuria causing concern to the patient. Treatment is surgical. Prevention entails the prevention of prolonged obstructed labour with the use of a partograph. Of importance also is proper caesarean section by an experienced surgeon, particularly where labour has become prolonged and obstructed.

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