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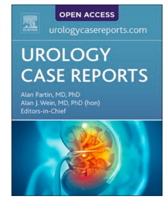

Functional medicine

Unusual case of recurrent urinary retention – A rare presentation of Chyluria

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ABSTRACT

Chyluria presenting as milky white urine is a known presentation. But sudden and recurrent urinary retention without prior history of chyluria is very rare presentation. It also indicates the severity and tendency of passing tissue bits and clots through urine in rare cases. This case was diagnosed because of strong clinical suspicion. This case also highlights the management difficulty in these types of patients as patient had recurrent retention requiring bladder wash & had episodes of chylohematuria with chyle material and clots. This presentation is rare and adds to the list of differential diagnosis of acute retention.

Introduction

Chyluria is a rare condition where chyle is excreted into the urine often turning it milky white. Most patients present with intermittent passage of milky urine, but they may also present with dysuria, urinary frequency, urgency and rarely retention.[1,2] Retention as the only presentation is very rare and gives a diagnostic dilemma in elderly male.[3] After drainage of urine, assessment of clots and possibility of recurrent retention has to be explained. Sudden presentation is uncommon and there is usually a long history of passing milky urine. This case is unique in view of the sudden onset of the disease and retention as the only presenting symptom and drainage of milky urine after catheterization.

Case report

A 62 year male presented with acute retention of urine with passage of small bits of tissue and hematuria. Patient required catheterization and milky white urine (turbid) drained with clots and white bits of tissue [Figure – 1,2]. There was recurrent block of catheter and frequent bladder wash was required. He underwent CT Urogram that revealed normal urinary system with bladder wall thickening and a few flakes in bladder. Cystoscopy and evacuation was performed and approx 30–40 cc of clots with whitish flakes drained followed by drainage of 800 ml milky white urine. After Cystoscopy, the patient was stable for 2 days followed by episodes of recurrent retention. Urine for chylomicrons and triglycerides were positive. Hence as patient had retention so there was no time to do lymphoscintigraphy hence patient was taken for Cystoscopy and chylous efflux was suspected on left system [Figure - 3]. Left RGP revealed a lymphatic leak from pelvicalyceal system. Hence betadine and urograffin combination used first for RGP followed by intra pelvicalyceal instillation. Extravasations were confirmed and further instillation done. After that there was transient rise in serum creatinine up to 1.3 that normalised on next day, urine became clear and there was no episode of retention. Patent came for follow up after 3 months and is currently asymptomatic.

Discussion

Chyluria is a rare condition, and retention as the first presenting symptom is rarely reported.[1] If there is no obvious history of milky white urine then suspecting Chyluria was unlikely. This case is unique in view of rare set of symptoms, hematuria and recurrent retention. Diagnostic difficulty already highlighted in literature, diagnosis can be made by visual examination of milky urine along with the ether test of urine for chylomicrons. Intravenous urography is used to locate the site of the fistula, although the detection rate is poor. There are limited number of case reports where patient presented with retention and weakness, but they usually have a associated history of passing milky urine.[3] Once the lymph channels are blocked, one of them may open into the kidney hilum or ureter or sometimes into the bladder and chyle can leak into the urinary tract resulting in milky white urine. Blood sometimes mixes with the urine resulting in haemato-chyluria.[4] This case highlights the

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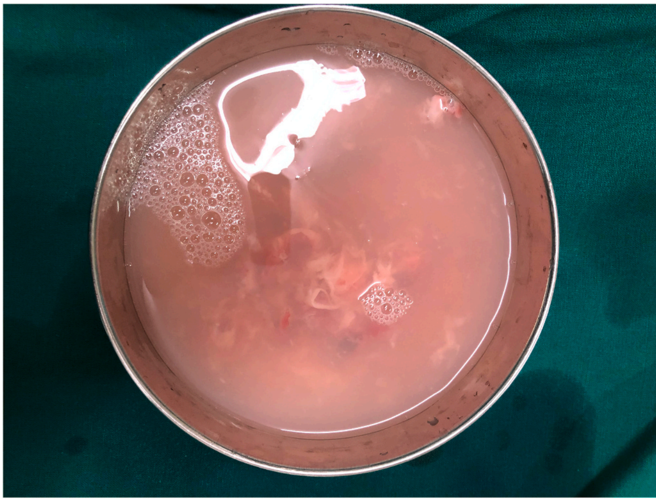

Fig. 1. Tissue bits and milky urine leading to retention of urine.

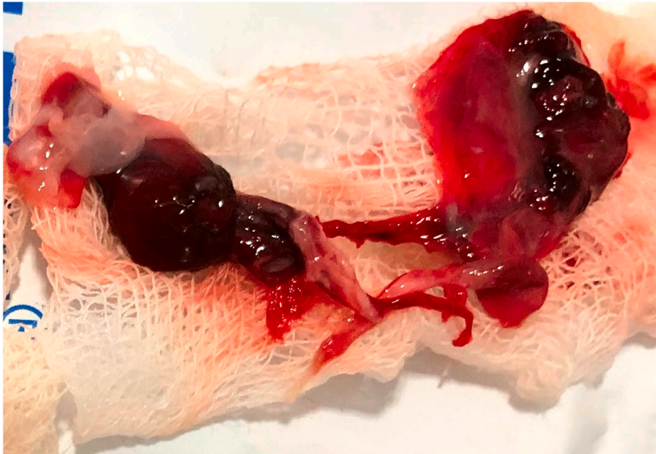

Fig. 2. Chylolymphatic tissue with blood clot.

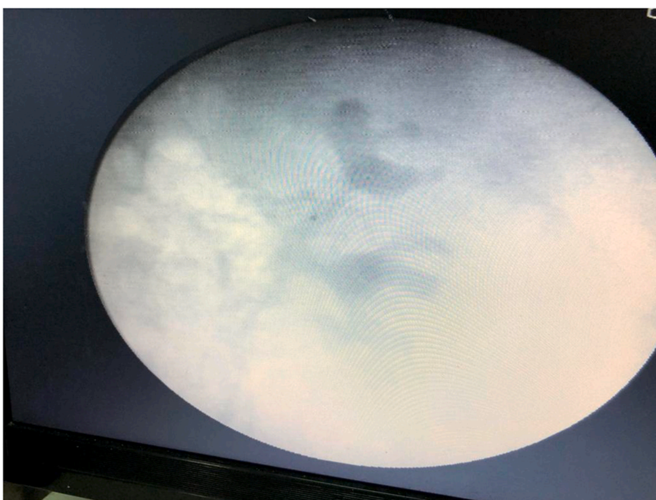

Fig. 3. Retrograde Pyelogram showing contrast extravasation.

importance of keeping Chyluria as one of differential diagnosis in patients presenting with recurrent retention. Renal pelvic instillation is a minimally invasive treatment of chyluria. Silver nitrate and povidone iodine are the most commonly used sclerosants in RPIS. Silver nitrate (0.1–1%) is effective in 59.4%–83.6% of cases and povidone iodine (0.2%) has shown more efficacy than silver nitrate(81%–100%). However, serious adverse effects were mostly observed with higher concentrations of silver nitrate (3% and 5%). Now a days, the concentration of sclerosant used (povidone iodine −0.1%–0.2%, silver nitrate 1%) is fairly dilute to avoid complications.[5] Betadine instillation is safe and effective therapeutic agent.[5] This paper also highlights that emergency physician and urologist should be aware of this presentation.

Conclusion

Retention of urine is one of the rare presenting symptom of Chyluria. Emergency doctors and urologist should keep one of the differential diagnosis as chylura in cases of recurrent retention. It can be properly managed with betadine instillation with long lasting and satisfying results.

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Declaration of competing interest

None.

References

1. Arif N, Biswas R, Zaman W. A case of milky urine due to chyluria. *Bangladesh Med J*. 2014;41:59–60.
2. Sharma S, Hemal AK. Chyluria: an overview. *Int J Nephrol Urol*. 2009;1:14–26.
3. Shah UH, Gupta S. Milky white urine after relief of urinary retention. *The journal of emergency medicine*. 2020;58(3):149–152.
4. Dalela D. Issues in etiology and diagnosis making of chyluria. *Indian J Urol*. 2005;21:18–23.
5. Singh KJ, Srivastava A. Nonsurgical management of chyluria (sclerotherapy). *Indian J Urol*. 2005;21:55–58.