Cure of chyluria by intravesical instillation of povidone iodine in a patient with vesicoureteric reflux

S. Bhat, T. A. Kishore, E. Sulaiman

Government Medical College, Kottayam and 1Medical College, Calicut, Kerala, India

For correspondence:
S. Bhat, Government Medical College, Kottayam, Kerala – 686008, India. E-mail: drsreshbhat@yahoo.com

ABSTRACT

We present a case of long standing chyluria in a 32-year-old lady who had also vesicoureteric reflux. The diagnosis was made by ultrasonogram and cystoscopy. She was treated with intravesical instillation of povidone iodine. We found that there was immediate cessation of chyluria.

Keywords: Chyluria, hematochyluria, milky urine, povidone iodine

How to cite this article:

Chyluria is usually of filarial origin and may regress spontaneously or may progress relentlessly leading to protein deficiency, weight loss, etc. Other methods of management include instillational therapies and minimally invasive or invasive surgeries. We describe a case of chyluria in a patient with vesicoureteric reflux cured by intravesical instillation of dilute povidone iodine solution. To our knowledge this is the first such case reported.

CASE REPORT

A 32-year-old male patient presented with intermittent episodes of right loin pain and voiding of ‘milky urine’ of 5-year duration. Physicals were negative.

Chyluria was confirmed by extraction with ether and demonstration of chylo-microns in the urine. Ultrasonography showed right kidney to be smaller with dilated collecting system and ureter. Grades 1 and 4 reflux was seen into the right and left ureters on micturating cystourethrogram. At cystoscopy, milky efflux was seen from the right ureteric orifice. Under antibiotic cover, the bladder was filled with 250 ml of povidone iodine solution (50 ml of 5% povidone iodine + 200 ml of distilled water) and the patient was asked to strain intermittently for 2 min and the bladder was emptied. There was prompt disappearance of chyluria. The patient underwent right ureteric reimplantation 2 months later. At 2 years follow up the patient was free of chyluria.

DISCUSSION

The management chyluria should initially be conservative as the rate of spontaneous remission is about 50%. This includes reassurance, specific antiparasitic drugs and low fat, high protein diet. Failure to respond to these measures necessitates instillation of sclerosing agents into renal pelvis. Traditionally, 1% silver nitrate has been used and has been shown to be safe and effective. However, serious complications like acute renal failure, life threatening hemorrhage[1] and death[2] have been reported following this. In 1998, Shanmugam et al.[3] described 0.2% povidone iodine instillation as safe and effective in curing chyluria. We used this technique in 20 patients with good results. Encouraged by this result, we employed povidone iodine in our patient with VUR, and to our surprise he has remained free of chyluria for the last 2 years. Considering the indirect method utilized, we used 1% of povidone iodine for bladder instillation. The immediate effect is probably due to inflammatory oedema and blockage of the lymphatics. Later on, fibrosis sets in,
occluding the lymphatics.

Chyluria and hematochyluria are usually features of filarial infection. It affects young males and females equally and is often intermittent. In about 20% of cases, the disease takes a relentless course. Patients lose considerable amount of weight and suffer from intermittent retention due to chylous or hematochylous clots. The cardinal presenting features of chyluria apart from milky urine are repeated episodes of urinary tract infection, hematuria, hematochyluria, and the associated weight loss due to passage of protein and fat in the urine. Filarial infestation and secondary streptococcal infection of the retroperitoneal lymph nodes and blockage of the lymphatics result in secondary lymphatic hypertension and retrograde flow of chyle from the intestine to the kidneys and in chyluria. The diagnosis of chyluria is confirmed by demonstration of chylomicrons in the urine. However, absence of chylomicrons does not rule out chyluria as it is intermittent.

REFERENCES