To the Editors:

A case of chyluria

A 55-year old woman complained of passing milky urine for three months. It was episodic and usually followed a meal or a brisk walk. Urine for chyle was positive when tested using Sudan III. Her ESR was 32 mm hour. Urine culture, serum proteins and creatinine, urine for acid fast bacill, Mantoux test and IVU were normal. Selective ureteric catheterisation showed that the chyluria came from the left kidney. She was recommended a low fat diet and a given a course of diethylcarbamazine. A bladder biopsy revealed changes of mild inflammation. Since her symptoms were persistent and troublesome intrarenal pelvic instillation of 10 ml of 0.5% silver nitrate was done. Postoperatively she noted a marked relief of her urinary symptoms.

Chyluria is commonly associated with infection by *Wucheraria bancrofti*. Non-parasitic chyluria can be due to trauma, tuberculosis, thoracic duct obstruction, aorto-iliac bypass surgery, congenital lymphatic anomalies or neoplasms such as malignant lymphoma (1). About 10% patients of infested with *W. bancrofti* develop chyluria (2). Usually it occurs about 20 years after parasitic infection. Dilation and proliferation of lymphatics in the lumbar and pelvic regions leading to lymphostasis and backflow of lymph *via* the renal pedicle lymphatics and renal pelvis have been demonstrated (3). Chyluria has an unpredictable clinical course with periods of remission.

When urine shows positive Sudan III staining and a high level of excreted protein the diagnosis of chyluria can be made. Cystoscopy after a meal may show milky urine spurting from the ureteral orifice of the affected side. Commonly the left kidney is affected although bilateral involvement is possible (4). Attempts to detect microfilariae in thick blood smears taken in the night are usually unsuccessful (2).

Conservative treatment with dietary fat restriction is useful in mild cases. When this alone is inadequate, renal pelvic instillation therapy is useful to sclerose the lympho-pelvic fistula. The agents used include 0.1% to 0.5% silver nitrate, 0.2% providone iodine, 10% to 25% bromide and contrast media used in radiology (2). Intrarenal pelvic instillation of silver nitrate has been the most widely used agent with initial success rates of about 60%, but recurrences are common. Surgical options include stripping and interception of the renal pedicle lymphatics, renal capsulectomy, renal auto-transplantation, creating a lympho-venous anastomosis (usually in the groin) and nephrectomy (4,5). Recently there have been reports of effective endoscopic coagulation of leaking lymphatics with the ureterocope (2).

References

1. Koo CG, van Langenberg A. Chyluria, a clinical study. *Journal of the Royal College of Surgeons of Edinburgh* 1969; **14**: 31-41.
2. Yagi S, Goto T, Kawamoto K, Miyawaki I, et al. Endoscopic treatment of refractory filarial chyluria: a preliminary report. *Journal of Urology* 1998; **159**: 1615-8.
3. Yu HHY, Ngan H, Leong CH. Chyluria – a 10 year follow-up. *British Journal of Urology* 1978; **50**: 126-33.
4. Yu HHY, Leong CH, Ong GB. Chyluria: Results of surgical treatment in 50 cases. *British Journal of Urology* 1978; **119**: 104-7.
5. Ji YZ, Zheng JH, Chen JN, Wu ZD. Microsurgery in the treatment of chyluria and scrotal lymphangial fistula. *British Journal of Urology* 1993; **72**: 952-4.

Anuruddha Abeygunasekera, *Urological Surgeon,* **Himali Bulegoda** *and* **Himali Nirupika,** *Senior House Officers, Urology Unit, Teaching Hospital, Karapitiya, Galle. (Correspondence: AA, Telephone + 94 1 763427, e-mail:* anabey@sltnet.lk*).*