Refractory chyluria due to filariasis

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We previously reported a Nepalese man who suffered from chyluria secondary to *Wuchereria bancrofti* infection [1]. Two weeks of diethylcarbamazine (DEC, 450 mg per day divided into three doses) resulted in treatment failure, and another 4 weeks of DEC combined with doxycycline (200 mg per day divided into two doses) successfully eradicated the parasitosis.

However, the chyluria recurred 1 year later. Milky urine (Fig. 1a) accompanying lower abdomen discomfort annoyed him every morning, though there was no leg edema or hydrocele. Microscopic examination showed milk fat globule in his urine (Fig. 1b), and lymphangiography demonstrated lymphorrhea draining into left renal pelvis (Fig. 1c). A relapse of filariasis was suspected but

repeated examinations for microfilaremia at midnight did not detect the parasite at all. Medical therapy was initiated with dietary restriction and oral administration of ezetimibe; however, the treatment did not improve the symptoms. Subsequently, a combination of DEC and doxycycline was administered, then, chyluria promptly and successfully disappeared.

Wuchereria bancrofti has been gradually eradicated, and physicians in developed countries are not familiar with filariasis [2]. The parasitosis is generally treated with anti-filarial drugs and a fat-restricted diet; however, success rate of such medical therapy is only about 70 % with a mean follow-up period of 2 years [3]. Filariasis potentially causes refractory chyluria by forming lymphorrhea between urinary and lymphatic tracts as shown in the present case. Physicians outside endemic areas may need to be aware of the refractory parasitic disease in this borderless era.

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Fig. 1 **a** Milky urine, **b** Milk fat globule, **c** Lymphangiography. Lymphangiography demonstrated a massive inflow of contrast material draining into left renal pelvis

Conflict of interest The authors state that there are no conflicts of interests to declare.

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