

Images in Clinical Tropical Medicine

Microfilaruria in a Patient of Chyluria

Sayantana Ray,* Nikhil Sonthalia, and Arunansu Talukdar

Department of General Medicine, Calcutta National Medical College and Hospital, Kolkata, West Bengal, India;
Department of General Medicine, Medical College and Hospital, Kolkata, West Bengal, India

A 38-year-old man presented with a history of passage of milky urine for the past 6 months; he had lost weight but denied dysuria and fever. Physical examination showed a thin, malnourished man weighing 52 kg and no lymphadenopathy but mild bipedal pitting edema.

Urine sample showed milky-appearing urine (Figure 1A). Urinalysis showed urinary triglycerides of 167 mg/dL against serum of 84 mg/dL, and 24-hour urinary proteins were 6.5 g. Centrifuged urine revealed sheathed microfilaria having a uni-

formly tapering caudal end with no terminal nuclei (Figure 1B and C). We provisionally diagnosed the case as chyluria with *Wuchereria bancrofti* microfilaruria. A ^{99m}Tc sulphur colloid lymphoscintigraphy revealed evidence of communication of the lymphatic system with upper ureter. Delayed radiotracer activity was seen in the urinary bladder (Figure 1D).

The patient received diethylcarbamazine for 14 days without resolution of illness. A high-protein diet exclusive of all fats except medium-chain triglycerides (coconut oil) was initiated.

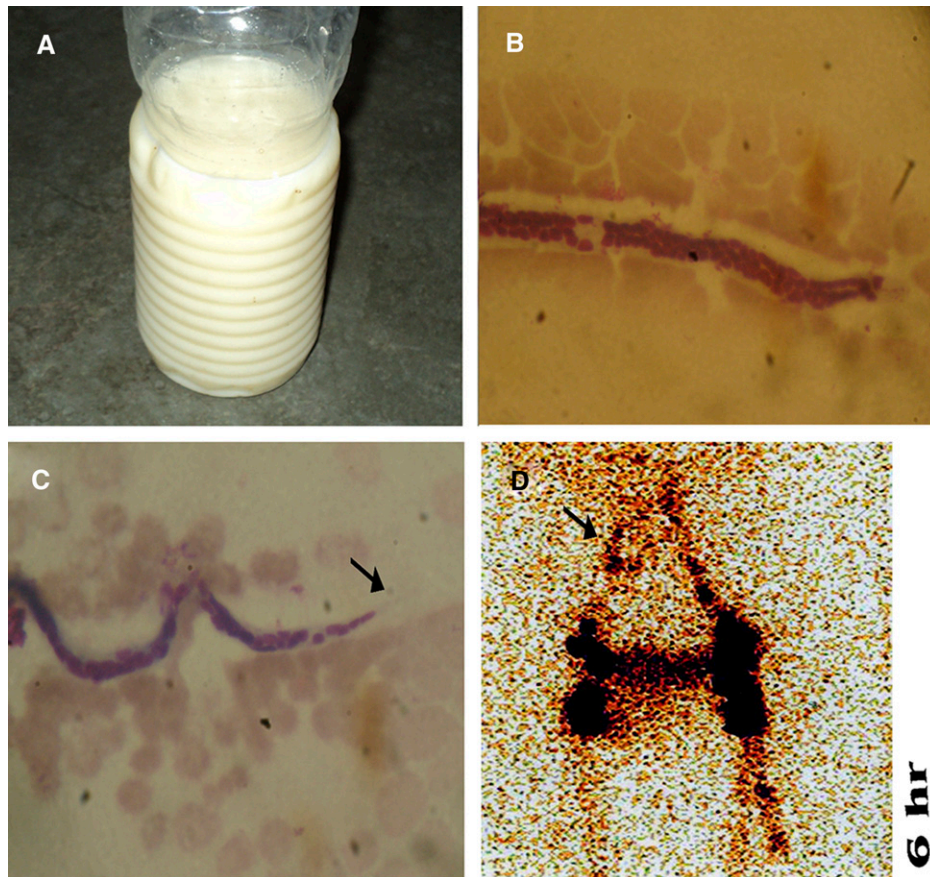


FIGURE 1. (A) Urine sample showing milkiess. (B) Bancroftian microfilaria in urine on a background of degenerated urothelial cells and lymphocytes (hematoxylin and eosin, $\times 1,000$). (C) Tail tip free of nuclei (black arrow) with the pointed terminal end. (D) ^{99m}Tc sulphur colloid lymphangioscintigraphy showed lymphoureteric fistula on the right side (arrow) with delayed radiotracer activity (6 hours) seen in the urinary bladder.

*Address correspondence to Sayantan Ray, Department of General Medicine, Calcutta National Medical College, Kolkata 700014, West Bengal, India. E-mail: sayantan.ray30@gmail.com

Sclerotherapy was planned to treat the chyluria. A ureteric catheter was placed in the right ureter using cystoscopy, and several instillations of 0.5% povidone-iodine solution were carried out. White urine cleared gradually, and 24-hour urinary protein also decreased significantly. Peripheral edema with improvement in serum albumin occurred after disappearance of chyluria.

Chyluria in filariasis is usually associated with abnormal retrograde or collateral flow of lymph from intestinal lymphatics into the renal lymphatics. Detection of microfilariae in the chylous urine of otherwise asymptomatic filarial patients has been rarely described.^{1,2}

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Authors' addresses: Sayantan Ray, Department of General Medicine, Calcutta National Medical College and Hospital, Kolkata, West Bengal, India, E-mail: sayantan.ray30@gmail.com. Nikhil Sonthalia and Arunansu Talukdar, Department of General Medicine, Medical College and Hospital, Kolkata, West Bengal, India, E-mails: nikhil_zenith@yahoo.co.in and dratalukdar@gmail.com.

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