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Magnetic resonance lymphography of chyluria

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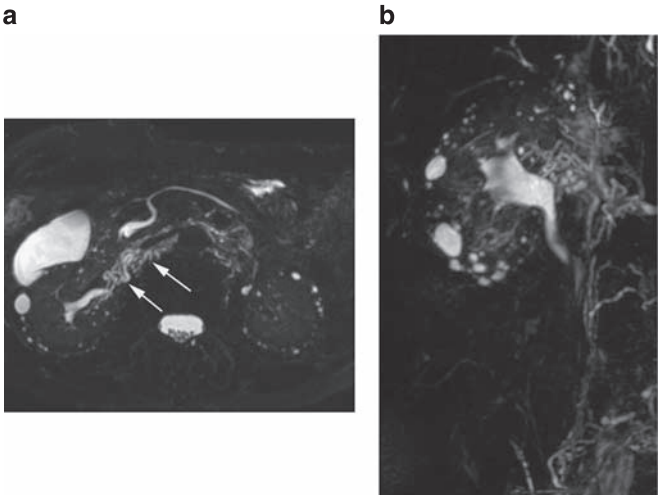

Figure 1 | Magnetic resonance (MR) lymphography. Maximum intensity projection (MIP) images in axial (**a**) and coronal (**b**) planes showing a dilatation of perirenal lymphatics as high-signal tubular vessels (arrows) communicating with the right renal pelvis.

We report a case of chyluria with magnetic resonance (MR) imaging demonstrating communication of lymphatic vessels with the renal pelvis.

An 83-year-old Asian woman who had lived in Vietnam for 40 years was referred to our hospital for recurrent milky-appearing urine and progressive weight loss. Urine analysis confirmed the presence of chyluria, demonstrating a proteinuria up to 4 g every 24 h, triglyceriduria, and chylomicronuria. Bacterial urine analysis and cultures were negative. Enzyme-linked immunosorbent assay for circulating *Wuchereria bancrofti* antigens was negative. MR imaging demonstrated retroperitoneal and perirenal lymphangiectasia with tortuous and markedly dilated retroperitoneal lymph vessels extending to the right renal hilum. Communication of these lymph vessels (arrows) with the right renal pelvis was demonstrated with 3D MR lymphography (Figures 1a and b). The patient underwent laparoscopic lympho-venous disconnection. The right kidney was freed all around, and the dilated lymphatics in the renal hilum along the renal vein were dissected and ligated. The postoperative course was uneventful. At 6-month follow-up, chyluria had not recurred. MR lymphography can be used as a noninvasive technique to detect the site and level of lymphatic obstruction to guide surgical repair. Filariasis remains endemic in many countries and is the world's most common cause of chyluria.