

Lymphuria

(A Case Report)

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INTRODUCTION

The term lymphuria means the presence of lymph in the urine. It is differentiated from chyluria by the fact that fat is absent in the urine. Lymphuria is caused by filariasis and was first described by Low and Wise.⁴ We are reporting a case of lymphuria due to pyelo-lymphatic communication.

CASE REPORT

A 35 year old female patient residing in North-East Bombay came to us with a history of passing milkish white urine for the last 1 year. The onset of this complaint was sudden and was not associated with any fever. It has remained stationary since then. There was no history of hematuria, fever with rigors or loin pain. There was no history of oedema of feet or puffiness of face. The cloudy urine did not worsen after meals.

On examination, she was found to be averagely built; her weight was 47 kg., BP was 110/80 mm Hg. There was no puffiness of face or oedema of feet. The kidneys were not palpable and there was no loin tenderness.

The urine, on gross examination, was cloudy white and formed a coagulum on prolonged standing. It showed a proteinuria of 4+ with 24 hours' excretion of 3 g, a few pus cells and 8-10 RBCs/HPF. No microfilariae were present. Repeated examination of the urine failed to reveal any fat. The turbidity did not disappear

with xylol, ether or chloroform. Sudan III stain was negative. Cholesterol, triglyceride and lipoprotein estimations were also negative. Her haemoglobin was 12 g%, WBC count was 10200/cumm. with P-56% E-10% and L-34%. Her serum creatinine, BUN, and electrolytes were normal. The urine culture did not show any growth. The IVP showed normal kidney size and outlines; the excretion was prompt and there was bilateral bifid intrarenal pelvis. Otherwise, the pelvicalyceal systems were normal. The ureters did not show any notching.

Bilateral lower limb lymphangiogram was done. It showed mild lymphangiectasis of pelvic and abdominal lymphatics. A small lymphocele was seen in the right upper pelvis. There was abnormal lymphaticorenal communication and opacification of the periureteral lymphatics. On both sides, the cisterna chyli and thoracic duct were normal in calibre and course. A few irregular filling defects were seen in the inguinal and para-aortic lymphnodes (Fig. 1).



FIG. 1: Lymphangiogram showing bilateral lymphaticorenal communication alongwith opacification of periureteral lymphatics.

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DISCUSSION

The term lymphuria was first coined by Low and Wise.⁴ They found that some patients with filariasis passed milky white urine but without fat in it. On gross examination, it was looking just like chyluria. The urine in these cases contained considerable amounts of albumin, RBCs and lymphocytes. Low and Wise⁴ who were able to investigate one of these cases shortly after death, found the lymphatic obstruction located in the kidney lymphatics caused by calcified filarial worm. Both lymphuria and chyluria are caused by abnormal communication between the lymphatics and the urinary system. The communication may be anywhere in the calyx to the bladder including the ureter. In filariasis, the communication occurs secondary to obstruction leading to lymphangiectasis and rupture of lymphatics. In cases of chyluria, the obstruction is between the intestines and the thoracic duct. This hypothesis was proposed by Ackermann¹ in 1862. After the advent of lymphangiography this has been adequately proved. On the other hand, in lymphuria the obstruction is usually lower to the intestinal lymphatics so that fat is absent in the urine. Although there are plenty of reports of lymphangiographic findings in chyluria,^{2, 3, 5, 6} there is so far not even a single report on the lymphangiographic findings in lymphuria. When we compared the lymphangiogram of this patient with those of other cases of chyluria we could not find any appreciable differences in the two.

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