*IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*
*e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 20, Issue 7 Ser.10 (July. 2021), PP 17-18*
*www.iosrjournals.org*

# Non-parasitic chyluria about a case

Y. Dwassy[1], H. Sabar[2], Y. Ettaki[1]
[1] *Medical Biology Unit, Provincial Hospital Hassan 1er, Tiznit, Morocco.*
[2] *Health monitoring unit, health safety and environmental health, Tiznit, Morocco*

***Abstract:***
*A patient consulted for proteinuria with cloudy, milky urine. The whole situation is explained by a chyluria for which the etiological assessment shows a lymphatic-urinary fistula probably following repeated ectopic pregnancies. The diagnosis of chyluria is based on cytological and biochemical analyses of the urine. Lymphatic-urinary fistula can be detected by different imaging techniques (cystoscopy, retrograde pyelography, lymphoscintigraphy; lympho-MRI).*
*Chyluria affects both men and women and the etiologies are mostly parasitic (filariasis, echinococcosis, cysticercosis, Ascaris, malaria, tapeworm) and rarely non-parasitic (tuberculosis, fungal infections and leprosy, congenital abnormalities of the lymphatic system, neoplasia, trauma, lymphatic stasis, pregnancy, aortic aneurysms and lymphatic obstruction after surgery).*
*Depending on the impact of chyluria, management is either no treatment, pelvic sclerotherapy or surgery.*
***Key Words:*** *Chyluria; Lymphatic system; ectopic pregnancy; non-parasitic chyluria ; proteinuria*

---

Date of Submission: 06-07-2021 Date of Acceptance: 19-07-2021

---

## I. Introduction

Chyluria is a fistula between the lymphatic ducts and the excretory tracts of the kidneys. It results in the urinary emission of chyle, a lymphatic liquid rich in lipids giving the urine a cloudy and milky appearance. The diagnosis of chyluria is based on the detection of lymphocytes and triglycerides in the urine.

The causes of chyluria can be classified into parasitic and non-parasitic causes. We report the case of a patient with chyluria of non-parasitic origin [1].

## II. Case presentation

in blood and urine. Urine protein electrophoresis shows non-selective proteinuria with predominantly albumin.

Abdominal ultrasound revealed normal kidneys, cystoscopy, retrograde ureteropylography and lymphoscintigraphy revealed the presence of a fistula between the lymphatic ducts and the urinary tract, probably resulting from repeated ectopic pregnancies.

We did not find any filarial or tuberculous infection in our patient. There were therefore no specific therapeutic sanctions.

Because of the lack of repercussions of this chyluria, no A 36 year old woman from Morocco has consulted for evolving milky morning urination for the past 5 months. On waking up, the patient had painless milky cloudy urine. The rest of the day, the urine is clear and limpid. Her medical history is marked by repeated ectopic pregnancies. There is no history of sugar diabetes', renal lithiasis or macroscopic hematuria. There is no alcohol, toxic or tobacco intoxication and also no particular family history.

The clinical examination found a woman in good general condition with no signs of undernutrition. The cardiorespiratory examination was normal; the abdomen was supple, without any organomegaly. There is no edema of the lower limbs.

The bioassay carried out in our laboratory indicates a creatinine level of 12 mg/l, with an urea level of 0.25 gl/l. The blood ionogram is normal, in particular albumin level is at 46 g/l. The lipidic profile scores a cholesterol at 1.80 g/l, triglycerides at 1.35 g/l and LDL at 1.05 g/l. The CBC shows no particular abnormality. Proteinuria is at 1.8 g/24 hours, the urinary sediment is rich in triglycerides and leukocytes of lymphocyte nature with absence of crystals. The urine culture is sterile. The urinary ionogram shows natriuria at 64.5 mmol/24h, kaliuria at 24 mmol/24h Viral serologies, immunological tests and cryoglobulinemia are negative. Intradermal tuberculin reaction is negative. The BK test by urinary examination is negative; the parasitological examination of stool and urine is negative, as well as the search for microfilariae treatment of the fistula by sclerotherapy or surgery was carried out.

## III. Discussion

Chyluria is a rare disease characterized by the passage of lymph in the urine giving it a milky white appearance due to its high content of chylomicrons and lymphocytes. It is the result of hyper-pressure in the lymphatics, most often secondary to an obstruction.

Usually classified in two varieties: of parasitic and non-parasitic origin. In endemic parasite areas (sub-Saharan tropical Africa, Japan, India, South Asia, Australia), filariasis by Wucheria Bancrofti remains the most common cause of this disease and chyluria is seen in 2% of infected patients as a late manifestation [2,3]. However, other parasites such as echinococcus, ascaris lumbricoides and shistosomia mansoni are also implicated.

In Europe, chyluria is extremely rare and is either a congenital abnormality or an obstruction of the thoracic duct by a chronic neoplastic or inflammatory process. Other etiologies such as diabetes, pregnancy, tuberculosis, trauma and surgery have also been reported [4,5,3].

This condition usually occurs between the ages of 20 and 40 years but has been observed at all ages, it can be uni or bilateral and more often intermittent.

Investigation of a chyluria includes chemical and parasitic urinalysis for microfilariae, assessment of renal function and nutritional status, cystoscopy and retrograde ureteropyelography as the first step. The cystoscopy performed at best in postprandial after fat intake allows to specify the side affected by highlighting the outcome of milky urine through the meatus. The UPR can visualize an opacification of the para-calcium lymphatics by reflux of the contrast product.

The differential diagnosis will be made with pyuria (the sediment consisting of polynuclear cells), crystalluria (phosphaturia) or lipuria (presence of large fat globules and absence of fibrin). Selective proteinuria, glomerular hematuria and a fortiori renal failure.

The natural history of chyluria is unpredictable with the possibility of spontaneous remission in 50% of cases [6]. Most often, chyluria is moderate; however, some patients may be completely asymptomatic, as in the case of our patient. Conversely, chyluria may be more severe and may be associated with urinary disorders (dysuria, hematuria, renal colic) and a decline in general condition due to loss of protein and lipids [7].

The therapeutic management of a patient with chyluria depends on the severity of the disease and is divided into conservative medical treatment and surgical treatment.

## IV. Conclusion

A chyluria in a patient should first point to lymphatic filariasis. This functional sign is always due to a lympho-urinary fistula. The fistulous path is difficult to show on imagery. It is the clinical, biological and radiological confrontation that will lead to the final diagnosis.

## References

[1]. Bally S, Demey A, et al. chylurie révélée par un pseudo-sydrome néphrotique : démarche diagnostique et thérapeutique. Progrés en urologie (2016) 26; 1153-1156
[2]. Hema A K, Gupta N P. Retropéritoneoscopic lymphatic management of intractable chyluria. J. Urol., 2002; 167 : 2473-2476.
[3]. Stanzia A M, MENINI C, CASARIL M, et al. Intermittent chyluria in a young man. Presse Med, 1996; 25 : 157-158.
[4]. Kbaier I, Binous M Y, Attyaoui F, et al. La chylurie. Tunisie Médicale, 2002 ; 80 : 653-657.
[5]. Kekre N S, Arun N, Date A. Retroperitoneal cystic lymphogioma causing intractable chyluria. BJU, 199; 81 : 327-328.
[6]. Ohyama C, Saita H, Miyasato N. Spontaneous remission of chyluria. J. Urol., 1979 ; 121 : 316-317.
[7]. Sherman R H, Goldman L B, Devere White R W. Filarial chyluria as a cause of acute urinary retention : a case report. Urology, 1987 ; Vol 29 : 642-645

Y. Dwassy, et. al. " Non-parasitic chyluria about a case." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, 20(07), 2021, pp. 17-18.