



# Conservative Treatment of Chylous Ascites after left Nephrectomy

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## Case Report

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## Abstract

Chylous ascites is the accumulation of chyle in the peritoneal cavity, a rare postoperative complication linked to a lesion of the abdominal or retroperitoneal lymphatic trunks. We report the case of a 68-year-old patient who underwent radical left total nephrectomy. Postoperative evolution was marked by chylous ascites, managed by conservative treatment with good evolution. This is a complication that should always be considered as a differential diagnosis of abdominal distension after radical nephrectomy.

**Keywords:** Chylous; Conservative Treatment; Nephrectomy

## Introduction

Chylous ascites is the accumulation of chyle in the peritoneal cavity, rare post-operative complication linked to a lesion of the abdominal or retroperitoneal lymphatic trunks [1]. Most cases of traumatic chylous ascites resolve with conservative treatment but refractory cases may require surgical ligation of the lymphatics [2].

## Case Presentation

A 68 years old male, followed for benign prostatic hypertrophy on alpha-blocker for 3 years, chronic tobacco user, and hypertensive for 15 years on dual therapy, never operated. In his 6-month history, the patient had left low back pain with macroscopic total hematuria without fever or other associated signs. Clinical examination on admission found a conscious, apyretic patient at 37.1°C, left lumbar tenderness, on rectal examination he had a regular and flexible prostate of 80g. The pre-operative biological work-up was normal. The CT-Scann shows a left renal process of the

medio and superior polar anterior lip of contrast-enhancing tissue density, measuring 81\*43 mm, extending to the renal vein as well as the upper, middle calicial groups, the pylon and the beginning of the ureter, including also the terminal portion of the renal artery (Figure 1).

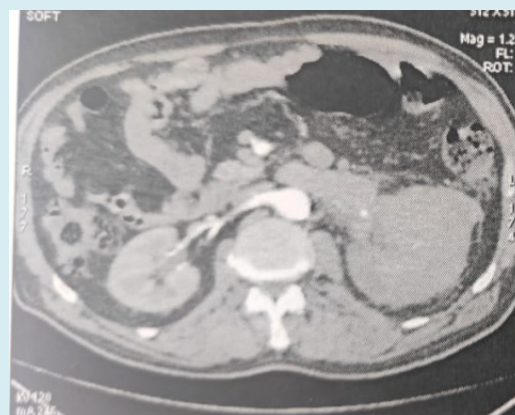
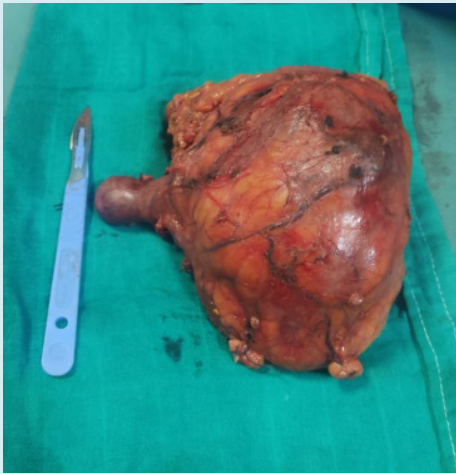


Figure 1: Left Renal Process.

The patient underwent a total left enlarged nephrectomy, the dissection of the renal vein being difficult ligated at its junction with the inferior vena cava (Figure 2).



**Figure 2:** Nephrectomy Specimen.

The postoperative evolution was marked, on D2, by a redon drain of the renal compartment which brought back 1,500 of chylous fluid daily (Figure 3).



**Figure 3:** Chylous Fluid.

Biochemical analysis was consistent with the chyle. The patient was put on a low-salt, low-fat, high-protein diet, which resulted in a decrease in chylous production to about 1l/day, and was subsequently put on Sandostatin 100 µg three times a day. After 8 days of treatment the chyle decreased to 150 ml, and then at D12 we noticed a complete resolution of the chyle with an empty drain. The patient was discharged and advised to remain on a low-fat diet for 3 weeks.

## Discussion

Although the main cause of postoperative chylous ascites is abdominal aortic surgery, transabdominal spinal, gynecological and urological procedures have also been described in case series and single case reports [3]. Chylous ascites can be classified as primary and secondary, the former being caused by a congenital dysfunction of the lymphatic system, while secondary chylous ascites can be caused by a malignant process, infection, trauma or post-surgical [1]. The incidence of postoperative chylous ascites is 1 to 17%, of which 0.6% are severe refractory cases for all surgeries combined [4]. In urology, it complicates 1.2-21% of retroperitoneal lymphadenectomies for testicular cancer and 3.8-5.1% of nephrectomies, particularly left nephrectomies (7.3%) [5]. Lymphatic drainage from the abdomen, pelvis and lower limbs goes to the paralumbar trunks which join the intestinal trunks to form the cisterna chyli. Thus, paraaortic renal artery dissection can result in injury to the paralumbar lymphatic trunks resulting in chylous leak and chylous ascites [6].

The clinical presentation of chylous ascites and chylous leakage differs according to whether there is a drain or not, with patients with a drain usually presenting with a persistent discharge of milky fluid, while those without a drain or with the drain removed presenting with abdominal distension, pain, nausea, or, more rarely, chylous discharge from the wound [7].

The diagnosis is made by CT scan or abdominal ultrasound. Chylous ascites is defined by a triglyceride level in the ascites fluid above 110 mg/dL. Typically this is 2 to 8 times higher than the plasma level [5].

Conservative treatment consists mainly of dietary modification (high protein, low fat, medium chain triglyceride diet), Somatostatin can be used to reduce intestinal fat absorption, thoracic duct triglyceride concentration and lymph flow. There is no exact timing for surgery, but some authors suggest that conservative management should be tried for 6 to 12 weeks before moving to surgical management [1,5].

## Conclusion

Chylous ascites should always be considered as a differential diagnosis of abdominal distension after radical nephrectomy. Conservative management should always be the first choice, and Sandostatin can play a vital role.

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