ISSN No:-2456-2165 https://doi.org/10.5281/zenodo.14613894

A Rare Case of Chylous Ascites: A Case Report

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Abstract:-

- ***Introduction:***

Chylous ascites is fluid buildup with elevated triglycerides, caused by various conditions. Early detection is crucial to prevent immunosuppression, malnutrition, and other complications.

- ***Presentation of case:***

A 40-year-old woman presented with left groin swelling. CT showed a 6x3x7 cm multiloculated collection, mild ascites, and liver cysts. Exploration revealed turbid, milky white fluid; analysis confirmed chylous ascites. Post-op, the patient had a smooth recovery, with no complications.

- ***Clinical Discussion:***

Chylous ascites, caused by cirrhosis, lymphatic abnormalities, malignancy, or infections like tuberculosis, presents diagnostic challenges. Treatment includes a low-fat diet, MCTs, and TPN for unresponsive cases.

- ***Conclusion:***

Mycobacterial chylous ascites is rare but treatable with antimycobacterial therapy, MCT diet, and somatostatin analogs, while excluding HIV and underlying infections in patients.

I. INTRODUCTION

Chylous ascites is a form of peritoneal fluid buildup in which the presence of chyle gives the fluid a turbid appearance, leading to elevated triglycerides (TG) concentration in the fluid.

One out of every 20,000 hospital admissions each year is due to chylous ascites, also known as chyloperitoneum [7]. Numerous illnesses, including as cirrhosis, cancer, trauma or surgery to the lymphatic system, right-sided heart failure, radiation, pericarditis, pancreatitis, TB, and filariasis in adults, have been linked to the development of this entity.[1, 2] In youngsters, congenital lymphatic abnormalities and trauma are considered the most common etiological contributors.[2] Apart from TGs and nutrients, chylous ascites is high in immunoglobulins, which means that its occurrence may put those who have it at risk for immunosuppression, malnourishment, and other negative consequences.

Therefore, early identification of the underlying mechanism and etiological factor may help direct treatment to help prevent negative outcomes in these individuals.

II. CASE REPORT

A 40 year old woman came to PDU government hospital, Rajkot with complain of left groin swelling. She had no history of weight loss, vomiting or altered bowel habits. She had no significant past medical history, previous trauma, risk factors for liver disease or abdominal surgery.

A computed tomogram (CT) abdomen and pelvis was performed showing 6*3*7cm multiloculated collection with few septas in left inguinal region with mild to moderate ascites along with multiple small to medium sized simple cyst present in both lobes of liver.

On physical examination, the abdomen was soft and non-tender, and around 9*4 cm swelling palpated over left inguinal region extending from inguinal crease to labia (Fig 1) which was single, well defined pyriform shaped, cystic, non mobile, non tender. No palpable cough impulse present. No signs of erythema, inflammation present. Transillumination was not present.

The patient was taken inside operation theatre and on exploration over left inguinal region turbid, milky white fluid was found to be present in large amount (Figure 2) instead of any well defined swelling and so intraperitoneal drain was kept in that region (Figure 3) and was patient was taken out after closure. The post-operative period was uneventful. Post operatively the fluid was sent for further examination and analysis of the fluid revealed the presence of chylomicrons and raised levels of triglycerides (14.8mmol/L) suggesting of chylous ascites. On the first postoperative day, around 200cc of chylous fluid was drained which kept on decreasing gradually and the drain was removed on the 7th postoperative day and the patient was discharged on the 8th postoperative day. On regular follow-up, patient had no post op complication and no similar was to be present again.

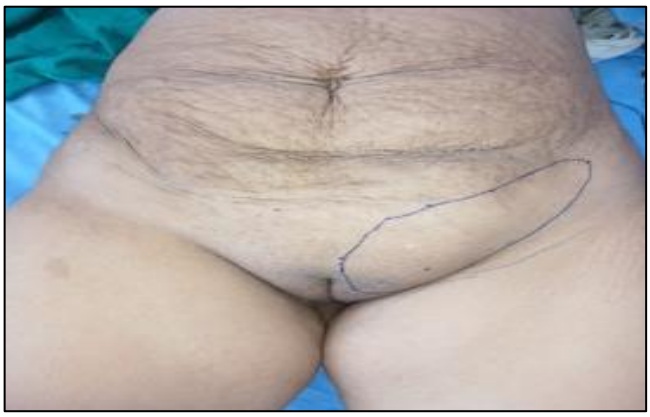

Fig 1: Swelling Present Over Left Inguinal Region

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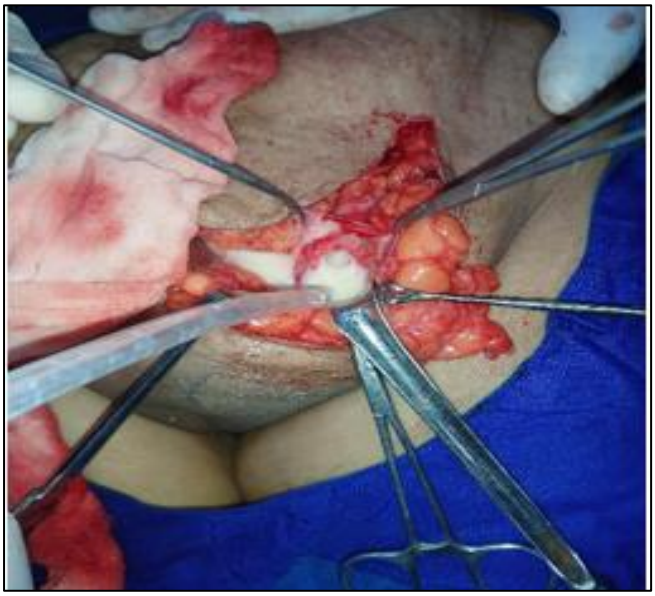

Fig 2: Presence of Chylous Ascites

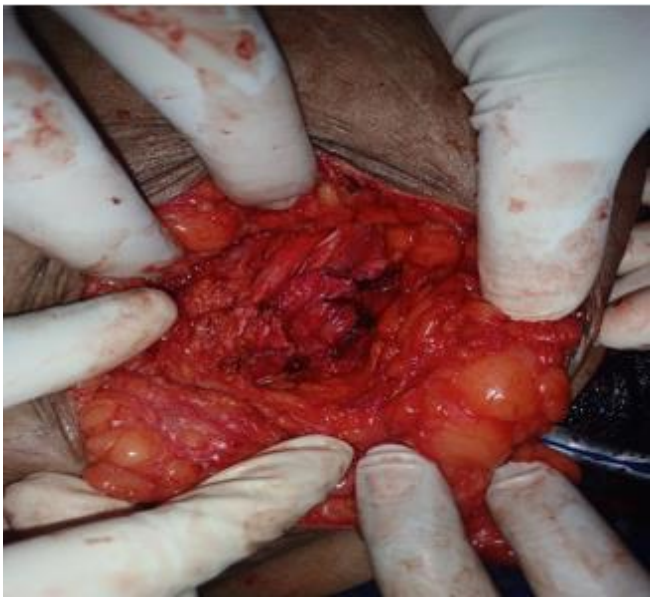

Fig 3: Placement of Intraperitoneal Drain

III. DISCUSSION

Chylous ascites is uncommon and frequently presents diagnostic and management challenges. More than two-thirds of cases of chylous ascites are caused by cirrhosis, lymphatic abnormalities, and abdominal malignancy in Western countries [8], while infections (such as tuberculosis and filariasis) are the most common causes in developing countries [9]. Chylous ascites is classified as "primary" or "idiopathic" when these factors are absent. Every piece of clinical and analytical evidence pointed to tubercular infection as the primary cause of chylous ascites in our patient.In 81% of instances, chylous ascites manifests as increasing abdominal distention without discomfort [9]. Malnutrition, edema, nausea, swollen lymph nodes, fevers, night sweats, diarrhea, steatorrhea, weight loss, and nonspecific abdominal pain are other symptoms. Typically, chylous ascites is not detected until diagnostic paracentesis is performed.

Patients with mycobacterial infections may develop chylous ascites due to a variety of reasons. These could involve lymphatic system blockage brought on by swollen lymph nodes or lymph nodal fibrosis. There have been reports of TB-related constrictive pericarditis leading to chylous ascites; the potential mechanism in these cases could be linked to lymphatic dilatation brought on by elevated hepatic venous pressures.[1,5] According to reports, mycobacterial chylous ascites can arise in a variety of ways related to the disease: as a presenting symptom where the genesis may be caused by abdominal lymphadenopathy, following treatment or the start of antitubercular therapy, which may be connected to a paradoxical reaction or immune reconstitution-related lymph nodal enlargement, or as a result of distant tuberculosis that arises as a consequence of treated tubercular lymphadenitis and is caused by lymph nodal fibrosis.[3,4,6]

Together with conservative measures, treatment aims to treat the underlying condition. The management plan recommends a low-fat, high-protein diet that contains medium-chain triglycerides (MCT) as the first line of treatment for chylous ascites symptoms. MCT works by lowering chyle production and flow. Patients who do not react to the aforementioned lymph flow reduction strategies should be treated with total parenteral nutrition (TPN) [10].

IV. CONCLUSION

In conclusion, even though mycobacterial chylous ascites is rare, it is usually curable.

HIV and an underlying mycobacterial infection must be disregarded in chylous ascites patients. The symptoms may be lessened by antimycobacterial therapy, which targets the underlying illness, MCT-based diet, and somatostatin or its analogs.

CONSENT

Informed consent was obtained from the patient for publication of this case report and accompanying images.

- Ethical approval: The approval of our institutional ethics committee is unnecessary for a clinical case report.
- Funding: None

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ISSN No:-2456-2165 https://doi.org/10.5281/zenodo.14613894

Declaration of competing interest.

All authors have no conflicts of interest for this case report for this case report.

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