International Journal of Contemporary Pediatrics
*Soni SE et al. Int J Contemp Pediatr. 2026 Mar;13(3):518-520*
http://www.ijpediatrics.com
pISSN 2349-3283 | eISSN 2349-3291

DOI: https://dx.doi.org/10.18203/2349-3291.ijcp20260419

**Case Report**

# Chylolymphatic mesenteric cysts in early infancy: case reports and literature review

**Swetha E. Soni[1]*, Vibhu Sharma[2], Mayur S. Soni[3], Shital N. Bhaisare[1]**

[1]Department of Pediatric Surgery, AIIMS, Nagpur, Maharashtra, India
[2]Department of Pediatric Surgery, Dwaraka Multispeciality Hospital, Gondia, Maharashtra, India
[3]Department of Pediatric Surgery, KIIMS-Kingsway Hospital, Nagpur, Maharashtra, India

**Received:** 03 December 2025
**Revised:** 05 January 2026
**Accepted:** 07 February 2026

***Correspondence:**
Dr. Swetha E. Soni,
E-mail: swethareddysoni22@gmail.com



## ABSTRACT

Chylolymphatic mesenteric cysts are an uncommon entity in infancy and represent a rare but important cause of intestinal obstruction. We report two infant cases, one arising from the jejunal mesentery and the other from the ileal mesentery, both presenting with progressive abdominal distension and recurrent vomiting. Ultrasonography and intraoperative findings suggested mesenteric cystic lesions causing bowel obstruction. Complete surgical excision of the cysts with resection of the involved bowel segments and primary anastomosis was performed in both cases. The postoperative course was uneventful, and both infants recovered well without recurrence. Early recognition and complete excision are crucial to prevent complications and ensure excellent surgical outcomes.

**Keywords:** Chylolymphatic cysts, Infancy, Mesenteric cyst

## INTRODUCTION

Mesenteric cysts are rare intra-abdominal lesions in children, with a reported incidence of 1 per 20,000 to 1 per 100,000 pediatric admissions.[1,2] They may occur anywhere along the mesentery from the duodenum to the rectum, with the small bowel mesentery particularly the ileum being the most common site.[3,4] Histologically, mesenteric cysts are classified into four types: simple lymphatic cysts, chylolymphatic cysts, enteric duplication cysts, and pseudocysts.[5]

Among these, chylolymphatic cysts are the most frequent histological subtype in children, comprising approximately 30–50% of mesenteric cysts.[3,5] They account for approximately 3–9% of all pediatric lymphangiomas.[1] Although uncommon, early diagnosis is important because these lesions may present with features ranging from an asymptomatic abdominal mass to acute intestinal obstruction or volvulus.

## CASE REPORTS

### *Case 1*

A 2-month-old infant presented with non-bilious vomiting for 15 days, initially managed conservatively. Symptoms progressed to bilious vomiting with abdominal distension. On examination, a palpable cystic lump measuring 7×8 cm was felt, extending from the right iliac region across the lumbar, pelvic, and left iliac regions.

Ultrasonography revealed dilated bowel loops and a large cystic lesion in the right lower abdomen crossing the midline, containing clear fluid, consistent with a mesenteric cyst (Figure 1). No calcifications or solid components were noted; minimal vascularity was present in the cyst wall.

At exploratory laparotomy, a large multiloculated chylolymphatic cyst was identified involving the

mesentery of the jejunum, approximately 5 cm distal to the duodenojejunal flexure. Resection of the involved jejunal segment (Figure 2) with end-to-end anastomosis was performed. The infant tolerated the procedure well, was started on oral sips on postoperative day 3, and discharged on full feeds by day 7.

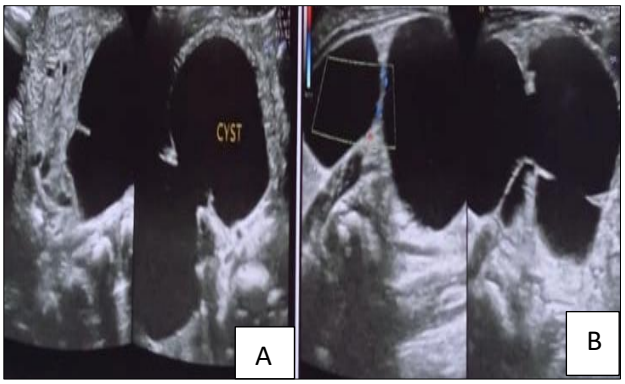


**Figure 1 (A and B): Ultrasonography of abdomen showing multicystic lesion in mesentery with clear fluid as content.**

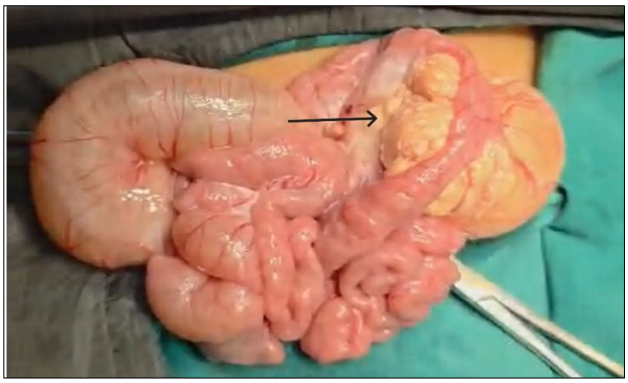

**Figure 2: Resected specimen showing chylolymphatic cyst on either side of jejunum.**

***Case 2***

A 45-day-old neonate presented with bilious vomiting for one day and rapidly progressive abdominal distension. The patient was vitally stable. On examination abdomen was distended palpable lump measuring 3×4 cm was detected in the right iliac region. antenatal ultrasonography had revealed a cystic intra-abdominal lesion at the 34-week scan.

Postnatal ultrasonography confirmed the presence of a cystic lesion in the lower abdomen. Upon exploration, peritonitis was present with a multilobulated chylolympatic cyst on either side of the ileum, approximately 10 cm proximal to the ileocecal junction. Perforated cystic spaces were seen within lobules (Figure 3). Resection of the ileal segment involving a chylolymphatic cyst was done with primary end-to-end anastomosis. The postoperative recovery was uneventful.

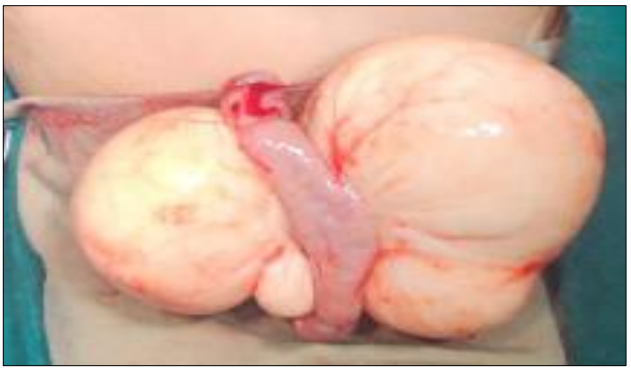

**Figure 3: Resected specimen of ileum with chylolymphatic cyst on either side with perforated cystic spaces seen.**

## DISCUSSION

Chylolymphatic cysts are rare variants of mesenteric lesions and constitute 7.3% to 9.5% of all abdominal cysts.[1] Very few cases of pediatric chylolymphatic cysts are reported in the literature. Engel et al reported four cases of cystic lymphangioma in the pediatric age group, only two of which were of the chylous variety.[1] Singh et al described 32 cases of cystic lymphangioma in children, with only one diagnosed as a chylolymphatic cyst on histopathology.[4]

Gupta et al reported a neonate who presented with intestinal obstruction due to a chylous mesenteric cyst, while Panjwani et al described an isolated case of a chylolymphatic mesenteric cyst in a 10-day-old neonate.[2,5] Ratan et al and Kriaa et al reported mesenteric cysts complicated by volvulus.[6,7]

Chylolymphatic cysts are believed to originate from abnormal clusters of lymphatic channels within the mesentery that fail to establish normal continuity with the systemic lymphatic system. Progressive collection of lymph and chyle within these isolated channels occurs due to an imbalance between fluid entry and drainage.

Although such cysts may theoretically arise anywhere along the gastrointestinal mesentery, they are most often encountered in association with the small bowel mesentery, followed by the colonic mesentery and retroperitoneum.[2] Morphologically, they may appear as solitary or multiple cysts, either unilocular or multilocular, and the internal contents may be serous, chylous, hemorrhagic, or chylolymphatic.[2]

The clinical presentation varies with cyst size and location but commonly includes abdominal distension, palpable mass, abdominal pain, and symptoms related to partial or complete intestinal obstruction. In infants, presentation may be subtle, with poor feeding, irritability, or non-bilious vomiting, making diagnosis challenging. If left untreated, these cysts may lead to severe complications including intestinal obstruction, volvulus, hemorrhage,

infection, rupture, or peritonitis, which can be life-threatening.[2,6-8]

Radiological investigations play a key role in diagnosis. A plain abdominal radiograph may reveal a homogenous mass displacing bowel loop, or multiple air-fluid levels in cases of obstruction. Ultrasonography is the imaging procedure of choice, delineating the nature, site of origin, and extent of the lesion. Computed tomography (CT) scan provides additional detail, particularly in multiloculated or complicated cysts.[2]

Various surgical options have been reported, including marsupialization, sclerotherapy, drainage, enucleation, percutaneous aspiration, and excision of the cyst with or without bowel resection.[7] Due to the high recurrence rates associated with marsupialization and drainage, complete excision remains the treatment of choice whenever feasible.[9] Steyaert et al also highlighted that incomplete removal can permit a proliferative course, emphasizing the importance of radical excision.[8]

## CONCLUSION

In conclusion, chylolymphatic cysts, though rare in early infancy, should always be considered in the differential diagnosis of cystic abdominal masses. Early diagnosis and complete surgical excision are essential to prevent life-threatening complications and achieve excellent outcomes with minimal morbidity. Regular postoperative follow-up is recommended to monitor for rare instances of recurrence.

*Funding: No funding sources*
*Conflict of interest: None declared*
*Ethical approval: Not required*

## REFERENCES

1. Engel S, Clagett OT, Harrison EG Jr. Chylous cysts of the abdomen. Surgery. 1961;50:593-9.
2. Gupta AR, Nanavati RN, Fernandez AR, Kalgutkar A, Nathani R, Deshmukh SS. Chylous mesenteric cyst: an unusual cause of neonatal intestinal obstruction. Indian Pediatr. 1992;29(4):511-3.
3. Takiff H, Calabria R, Yin L, Stabile BE. Mesenteric cysts and intra-abdominal cystic lymphangiomas. Arch Surg. 1985;120(11):1266-9.
4. Singh S, Baboo ML, Pathak IC. Cystic lymphangioma in children: report of 32 cases including lesions at rare sites. Surgery. 1971;69(6):947-51.
5. Panjwani K, Gangopadhyay AN, Sharma SP, Gupta DK, Chooramani GS. Chylolymphatic mesenteric cyst: an unusual abdominal mass in a new born. Indian J Pediatr. 1993;60(5):712-4.
6. Ratan SK, Ratan KN, Kapoor S, Sehgal T. Giant chylolymphatic cyst of the jejunal mesentery in a child: report of a case. Surg Today. 2003;33(2):120.
7. Kriaa S, Hafsa C, Majdoub S, Jouini R, Golli M, Nouri A, et al. Caecal volvulus with calcified mesenteric cyst. Arch Pediatr. 2007;14(7):924-25.
8. Steyaert H, Guitard J, Moscovici J, Devlieger H, Lacombe F, Lenoir M. Abdominal cystic lymphangioma in children: benign lesions that can have a proliferative course. J Pediatr Surg. 1996;31(3):677-80.
9. de Perrot M, Bründler MA, Tötsch M, Mentha G, Morel P. Mesenteric cysts: toward less confusion? Dig Surg. 2000;17(4):323-8.
10. Kurtz RJ, Heimann TM, Holt J, Beck AR. Mesenteric and retroperitoneal cysts. Ann Surg. 1986;203(1):109-12.

**Cite this article as:** Soni SE, Sharma V, Soni MS, Bhaisare SN. Chylolymphatic mesenteric cysts in early infancy: case reports and literature review. Int J Contemp Pediatr 2026;13:518-20.