

Cystic Lymphangioma of Pancreas - Case Series

Dr.Arun.K¹, R.Ravi², Senthilkumar perumal², R.Kamalakaran²,
 Umamaheshwaran², J.Saravanan², M.Thiruvarul², C.Sugumar³,
 S.Jeswanth³, P.Ravichandran³,

¹PG Resident in Surgical Gastroenterology.,

²Assistant professors in surgical gastroenterology

³Professors in surgical gastroenterology

Institute of Surgical Gastroenterology & Liver Transplantation.

Government Stanley Medical College & Hospital. Chennai Tamilnadu India.

Highlights

- Cystic lymphangioma of Pancreas is a rare entity.
- Even though imaging shows large size, mass won't be palpable because of yielding nature.
- Importance of this entity lies in the differential diagnosis from other cystic lesions of pancreas based on age at presentation, clinical & radiological characteristics.

I. Introduction

Cystic lymphangioma of pancreas is a very rare entity¹. In 1913, Koch reported the first case of cystic lymphangioma of pancreas¹. Lymphangioma usually occurs in the neck, axillary region, and rarely in the mediastinum. Abdominal organs are uncommon sites of origin for lymphangioma¹. Of all the lymphangiomas in the peritoneal cavity, about 70% have been found in the mesentery of small intestine². Pancreas is one of the rarest sites & it is to be considered as one of the differential diagnosis among cystic neoplasms of pancreas, pseudocyst of pancreas & also other retroperitoneal cystic tumours.

II. Case Series – Study

Herein, We report 6 cases of cystic pancreatic lymphangioma from March 2013 to June 2016. All patients presented in 2nd decade as vague epigastric discomfort. Male : female ratio is 1:1; more commonly located in the region of body & tail of the pancreas (body & tail - 4 ; head - 2) occupying lesser sac & upper retroperitoneum. Upon physical examination, there was no palpable mass because of yielding nature though lesion was large. Size of the lesion varies from 6cm to 19cm (average- 12cm) with Hepatic artery & GDA seen coursing through the lesion in one case.

Radiological imaging studies commonly revealed multiseptated cystic mass lesion located in the upper ventral pancreatic area (head - 2; body & tail - 4) neighboring posterior stomach occupying upper retroperitoneum; Size of the lesion varies from 6cm to 19cm (average- 12cm) with Hepatic artery & GDA seen coursing through the lesion in one case. EUS guided cyst fluid aspiration done & level of CEA, Amylase, CA 19-9 are found to be within normal limits. Complete excision preserving vessels was done in all the cases. Final pathological diagnosis was reported as cystic lymphangioma. All the patients made complete recovery & no recurrences on followup.

Table

	Case-1	Case-2	Case-3	Case-4	Case-5	Case-6
Age	16	12	20	13	19	16
Sex	Female	Male	Male	Female	Male	Female
Location	Head	Head	Body & tail	Body & tail	Body & tail	Body & tail
Extent	Lesser sac & HDL ligament	Lesser sac	Lesser sac Upper retroperitoneum			
Complication	Infection	-	-	-	-	-

Figure -1

CECT abdomen showing multiseptated hypodense cystic lesion with nonenhancing thin delicate septa occupying the body & tail of the pancreas in the lesser sac.

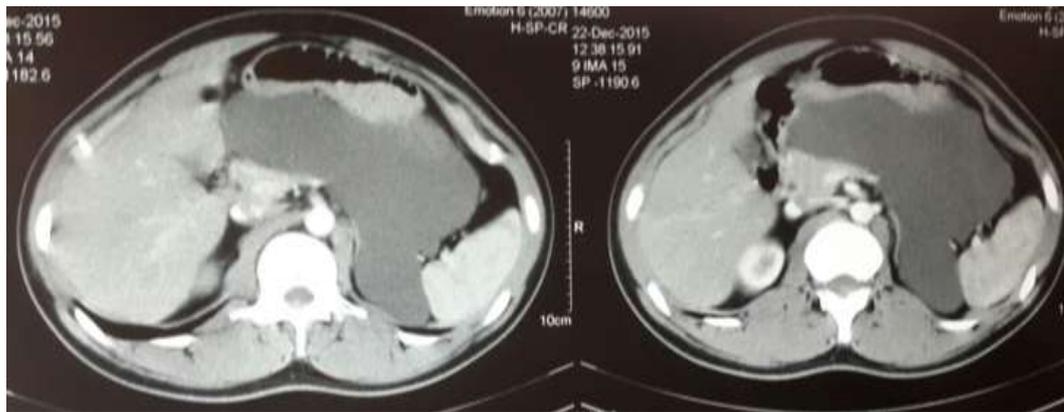


Figure-2

Intraoperative picture showing cystic lymphangioma occupying the body & tail of the pancreas in the lesser sac posterior to stomach.



III. Discussion

Cystic lymphangiomas are multi-loculated soft cystic masses, composed of dilated lymphatic channels, divided by thin septae because of insufficient drainage due to abdominal trauma, inflammatory process, surgery or radiation therapy³. Pancreatic lymphangioma is a very rare entity less than 1%. In our study lesion more commonly located in body & tail of the pancreas (body & tail – 4; head – 2); male : female ratio-1:1; Age group – 2nd decade; Size of the lesion varying from 6cm to 19cm (average- 12cm) ; occupying upper retroperitoneum; not invading any vascular structures though imaging suggested hepatic artery & GDA coursing through the lesion in one case. Infection as a complication was found in one case although intracystic hemorrhage, cyst rupture, volvulus reported in literature⁴. Association of these lesions with blue rubber bleb nevus syndrome has also been described in literature.⁵

Importance of this entity is that this has to be differentiated from Pseudocysts, cystic neoplasm of pancreas (mucinous and serous cystadenomas, solid pseudopapillary tumors, IPMN), congenital cysts and ductal carcinoma & other retroperitoneal cystic tumours⁶. Imaging studies (CT) helped us to differentiate these lesions from others. These lesions usually presented as multiloculated cystic tissue lesion with anechoic contents with nonenhancing thin delicate septa crisscrossing the lesion⁷; No true capsule; No mural nodules/ wall calcification or perilesional lymphadenopathy. Complete excision is the treatment of choice; recurrence can occur in 7% of the cases⁸ though no recurrences on follow up. Although lymphangioma rarely becomes malignant, its prognosis is generally good⁹

IV. Conclusion

Cystic pancreatic lymphangiomas are rarely seen tumors. Importance of this entity lies in the differential diagnosis from other cystic lesions of pancreas based on age at presentation, clinical & radiological characteristics. Complete surgical resection is curative.

References

- [1]. Kawaguchi K, Motoi F, Ohtsuka H, Et Al. Cystic Lymphangioma Of The Pancreas With Spontaneous Rupture: Report Of A Case. Case Rep Gastroenterol 2011;5:288-94
- [2]. Kim JH, Ryu WS, Min BW, Et Al. Acquired Omental Cystic Lymphangioma After Subtotal gastrectomy: A Case Report. J Korean Med Sci 2009;24:1212-5.
- [3]. Fahimi H, Faridi M, Gholamin S, Et Al. Cystic Lymphangioma Of The Pancreas: Diagnostic And Therapeutic Challenges. JOP 2010;11:617-9. Erratum In: JOP 2010;11:619.
- [4]. Bhavsar T, Saeed-Vafa D, Harbison S, Inniss S. Retroperitoneal Cystic Lymphangioma In An Adult: A Case Report And Review Of The Literature. World J Gastrointest Pathophysiol 2010
- [5]. Nobuhara Y, Onoda N, Fukai K, Hosomi N, Ishii M, Wakasa K, Et Al. TIE2 Gain-Of-Function Mutation In A Patient With Pancreatic Lymphangioma Associated With Blue Rubber-Bleb Nevus Syndrome: Report Of A Case. Surg Today 2006
- [6]. Khandelwal M, Lichtenstein GR, Morris JB, Furth EE, Long WB. Abdominal Lymphangioma Masquerading As A Pancreatic Cystic Neoplasm. J Clin Gastroenterol 1995
- [7]. Colovic RB, Grubor NM, Micev MT, Et Al. Cystic Lymphangioma Of The Pancreas. World J Gastroenterol 2008;14:6873-5.
- [8]. Jurlin V, Georgescu E, Dumitrescu C, Et Al. Retropancreatic Cystic Lymphangioma - Considerations Upon A Case. Rom J Morphol Embryol 2011;52 Suppl 1:493-6.
- [9]. Chung SH, Park YS, Jo YJ, Et Al. Asymptomatic Lymphangioma Involving The Spleen And Retroperitoneum In Adults. World J Gastroenterol 2009;15:5620-3

Potential Reviewers

	Speciality	Institution	Email address
1. Prof. P. Ravichandran	M.B.B.S., M.S., M.Ch	Institute of Surgical Gastroenterology & Liver Transplantation. Govt Stanley Medical college & Hospital	prahari05@gmail.com
2. Prof. S. Jeswanth	M.B.B.S., M.S., M.Ch	Institute of Surgical Gastroenterology & Liver Transplantation. Govt Stanley Medical college & Hospital	dr_jeswanth@yahoo.co.in
3. Prof. C. Sugumar	M.B.B.S., M.S., M.Ch	Institute of Surgical Gastroenterology & Liver Transplantation. Govt Stanley Medical college & Hospital	dr.sugumar@yahoo.com

Authors	Speciality	Institution	Email address
1. Arun kasi	M.B.B.S., M.S., M.Ch (PG resident)	Institute of Surgical Gastroenterology & Liver Transplantation. Govt Stanley Medical college & Hospital	drkarunms@gmail.com
2. R. Ravi	M.B.B.S., M.S., M.Ch	Institute of Surgical Gastroenterology & Liver Transplantation. Govt Stanley Medical college & Hospital	ravigisurgery@yahoo.com
3. Senthil kumar perumal	M.B.B.S., M.S., M.Ch	Institute of Surgical Gastroenterology & Liver Transplantation. Govt Stanley Medical college & Hospital	dr.psenthil@yahoo.com
4. R. Kamalakannan	M.B.B.S., M.S., M.Ch	Institute of Surgical Gastroenterology & Liver Transplantation. Govt Stanley Medical college & Hospital	kkgisur@gmail.com
5. J. Saravanan	M.B.B.S., M.S., M.Ch	Institute of Surgical Gastroenterology & Liver Transplantation. Govt Stanley Medical college & Hospital	saran_world@yahoo.com
6. Umamaheshwaran	M.B.B.S., M.S., M.Ch	Institute of Surgical Gastroenterology & Liver Transplantation. Govt Stanley Medical college & Hospital	dr_ums@yahoo.co.in
7. M. Thiruvurul	M.B.B.S., M.S., M.Ch	Institute of Surgical Gastroenterology & Liver Transplantation. Govt Stanley Medical college & Hospital	drmtarul@gmail.com
8. Prof. S. Jeswanth	M.B.B.S., M.S., M.Ch	Institute of Surgical Gastroenterology & Liver Transplantation. Govt Stanley Medical college & Hospital	dr_jeswanth@yahoo.co.in
9. Prof. C. Sugumar	M.B.B.S., M.S., M.Ch	Institute of Surgical Gastroenterology & Liver Transplantation. Govt Stanley Medical college & Hospital	dr.sugumar@yahoo.com
10. Prof. P. Ravichandran	M.B.B.S., M.S., M.Ch	Institute of Surgical Gastroenterology & Liver Transplantation. Govt Stanley Medical college & Hospital	prahari05@gmail.com