

Mesenteric Teratoma in Elderly Female: A Rare Case Report

CHANDRASEKHAR SHARANAPPA NEERALAGI¹, KR SURAG², YOGESH KUMAR³, S LAKKANNA⁴, PREETHAM RAJ⁵

ABSTRACT

Dermoid cysts rarely present as mesenteric cysts. Mesenteric cysts are rare pathologic entities, with a reported incidence of approximately 1 of 27 000 to 1 of 100 000 admissions. Mesenteric cyst was first described by Florentine anatomist Beneveni in 1507, while performing an autopsy on an eight-year-old boy. Most commonly, teratoma occurs in the early age group. Mature mesenteric teratoma in adulthood is extremely rare. Teratoma are germ cell tumours commonly composed of multiple cell types derived from one or more of the 3 germ layers. We present the case of a 69-year-old elderly female who presented with abdomen pain for nine months with right lumbar and right iliac fossa mass. Computed Tomography (CT) abdomen revealed bilocular cystic lesion with possibility of mucinous cystadenoma with no definitive organ of origin. She underwent explorative laparotomy and total excision of the cystic mass. Histopathologic examination confirmed diagnosis of mature cystic teratoma of mesentery. This case report highlights the need to maintain high index of suspicion while evaluating abdominal mass.

Keywords: Autopsy, Cystic, Dermoid, Germ Cell, Laparotomy

CASE REPORT

A 69-year-old female patient presented with abdomen pain for nine months. She had a history of hysterectomy with bilateral salphingo-oopherectomy, 25 years back. Physical examination revealed mass in right iliac fossa extending into right lumbar region measuring 20x18 cm. Swelling was firm in consistency, smooth surface with all borders well defined.

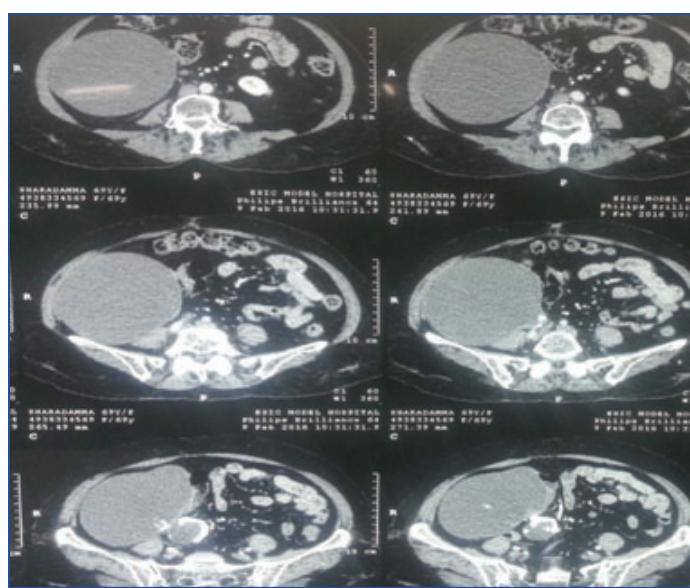
The patient was subjected to ultrasonogram (USG) abdomen which showed 12x13x11 cm thick walled cystic lesion with calcified foci occupying right iliac fossa extending to lumbar region. CT scan of abdomen was suggestive of bilocular cystic lesion with possibility of mucinous cystadenoma with mucocele [Table/Fig-1]. CA-125 ovarian tumour marker level was assayed and found to be within normal limit. She underwent laparotomy with midline incision. On abdominal cavity exploration a large mass was noted involving right iliac fossa, lumbar and hypochondrium with wrapped up omentum around the mass. Bowel and solid organs liver spleen kidneys were found to be healthy. Uterus and both the ovaries were absent. The cyst

was excised in toto, on opening the cyst thick gelatinous mucinous material, unilocular cyst with calcified areas gritty to cut, may be teeth were noted [Table/Fig-2].

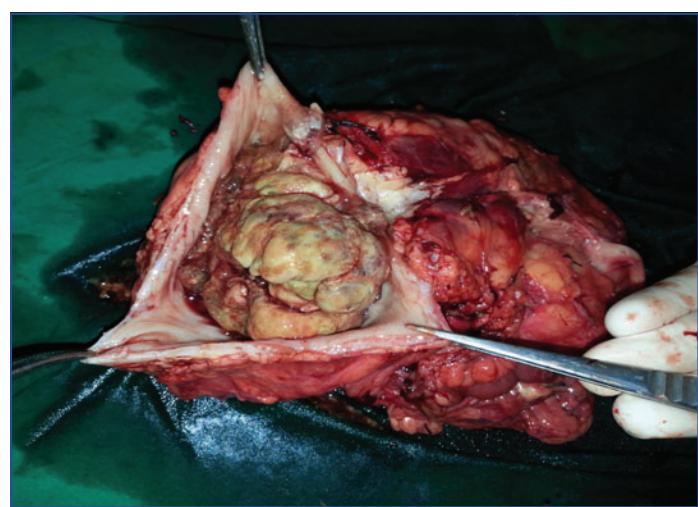
The specimen was subjected to histopathological examination and report showed cyst wall lined by flattened cuboidal epithelium, cyst contains derivative of ectoderm lined by squamous epithelium keratin material, mesoderm bone marrow elements fibro fatty tissue, cartilage and endoderm derivative like intestinal glands confirming the diagnosis of mature cystic teratoma arising from mesentery.

DISCUSSION

Mesenteric cysts are rare pathologic entities, with a reported incidence of approximately 1 of 27 000 to 1 of 100 000 admissions. Florentine anatomist Beneveni first described a mesenteric cyst in 1507, while performing an autopsy on an eight-year-old boy [1]. Teratomas are germ cell tumours composed of multiple cell types derived from one or more of the three germ layers. The word teratoma is derived from the Greek *teras*, meaning monster [2]. Most commonly teratoma occurs in the early age group [3]. Mature mesenteric teratoma in adulthood is extremely rare [4].



[Table/Fig-1]: CT scan of abdomen features suggestive of bilocular cystic lesion with possibility of mucinous cystadenoma with mucocele.



[Table/Fig-2]: Specimen of cyst thick gelatinous mucinous material, unilocular cyst with calcified areas gritty to cut, may be teeth.

Dermoid cysts rarely present as mesenteric cysts. Teratoma can occur anywhere in pathway of ectodermal cell migration, especially in the midline, from the cranium, mediastinum and retroperitoneum to sacrococcygeal regions [5]. The most common location is sacrococcygeal (57%) and in the gonads, more so in ovary. Cystic teratomas occasionally occur in sequestered midline embryonic cell rests and can be mediastinal (7%), retroperitoneal (4%), cervical (3%), and intracranial (3%) [6].

Differential diagnosis for mesenteric cystic mass include mesenteric or omental cyst, cystic teratoma, cystic spindle cell tumours and cystic mesothelioma. The most common type of mesenteric or omental cyst is lymphangioma [7]. Mesenteric cystic lymphangioma with calcification simulates cystic teratoma radiologically [8].

Malignant forms of mesenteric cysts have been described previously [9] and the incidence of malignancy is reported to be less than 3% [10]. To exclude malignant potential, performing complete surgical excision and a full histological examination of the resected specimen are recommended [9]. Mesenteric cysts can be treated with either laparotomy or laparoscopic surgery. The selection of the surgical approach depends on the size of the cyst, the location within the abdominal cavity, and the skill of the surgeon.

CONCLUSION

In this article we have described a rare presentation of mesenteric

dermoid in right iliac fossa and lumbar region in old age patient with diagnostic challenge and hence it becomes imperative for the practicing physician to consider it as differential diagnosis of any cystic lesion of abdomen, even though imaging might not be contributory.

REFERENCES

- [1] Kurtz Robert J, Heimann Tomas M, Robert BA, James H. Mesenteric and retroperitoneal cysts. Ann Surg. 1986;203:109-12.
- [2] Pantoja E, Noy MA, Axtmayer RW, Colon FE, Pelegrina I. Ovarian dermoids and their complications. Comprehensive historical review. Obstet Gynecol Surv. 1975;30(1):1-20.
- [3] De J, Banerjee M, Biswas PK, Banerjee AK, Karim R. Mature teratoma of the mesentery. J Indian Med Assoc. 2002;100(3):198-99.
- [4] Cuevas-Ocampo AK, Tavares-Garcia S, Martínez-Gómez H. Mature mesenteric teratoma in an adult male. A case report. Rev Med Inst Mex Seguro Soc. 2011;49(2):209-12.
- [5] Yu CW, Liu KL, Lin WC, Li YW. Mature cystic teratoma of pancreas in a child. Pediatric Radiology. 2003;33(4):266-68.
- [6] Grosfeld JL, Billmire DF. Teratomas in infancy and childhood. Curr Probl Cancer. 1985;9(9):1-53.
- [7] Grainger RG, Allison DJ. Imaging of mesentery and omentum. In: Ana I.Nicolas, Pablo R. Ros, editors. Diagnostic radiology. London: Churchill Livingstone, 1997:1076-78.
- [8] Stoupis C, Ros PR, Abbott PL, Burton SS, Gauger J. Bubbles in the belly: Imaging of cystic mesenteric or omental masses. Radiographics. 1994;14(4):729-37.
- [9] Bury TF, Pricolo VE. Malignant transformation of benign mesenteric cyst. Am J Gastroenterol. 1994;89(11):2085-87.
- [10] Liew SC, Glenn DC, Storey DW. Mesenteric cyst. Aust N Z J Surg. 1994;64(11):741-44.

PARTICULARS OF CONTRIBUTORS:

1. Junior Resident, Department of General Surgery, ESIC Medical College, Bengaluru, Karnataka, India.
2. Junior Resident, Department of General Surgery, ESIC Medical College, Bengaluru, Karnataka, India.
3. Junior Resident, Department of General Surgery, ESIC Medical College, Bengaluru, Karnataka, India.
4. Professor, Department of General Surgery, ESIC Medical College, Bengaluru, Karnataka, India.
5. Assistant Professor, Department of General Surgery, ESIC Medical College, Bengaluru, Karnataka, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Chandrasekhar Sharanappa Neeralagi,
3, Syndicate Residency, 1st Main, Vidyagiri, Dharwad-580004, Karnataka, India.
E-mail: chandrusn22@gmail.com

FINANCIAL OR OTHER COMPETING INTERESTS:

None.

Date of Submission: Aug 21, 2016
Date of Peer Review: Sep 20, 2016
Date of Acceptance: Nov 21, 2016
Date of Publishing: Jan 01, 2017