

CASE REPORT

MESENTERIC PANNICULITIS – A CASE REPORT

Amol Jagdale¹, Saurav Mittal², Krutik Patel², Azhar Shaikh²

Author's Affiliations: ¹Professor & Head; ²Resident, Department of Radiology, Dr. Vasanttrao Pawar Medical College, Aadgaon, Nashik

Correspondence: Dr Saurav Mittal Email: sauravmittal.cya@gmail.com

ABSTRACT

Introduction: It is a benign fibro-proliferative process that involves the adipose tissue surrounding the mesentery. It is also known as Mesenteric lipodystrophy or sclerosing mesenteritis.^{1,2} It is sometimes called as a variant of Weber Christian Disease.¹

Key words: Mesentery, Inflammation, Panniculitis, CT, USG, Fibrosis, Inflammation, Fat.

INTRODUCTION

Mesenteric panniculitis is a benign fibro-inflammatory process involving the adipose tissue of the mesentery and is characterized by fat necrosis, chronic inflammation and fibrosis.^{1, 2, 3} It was first described by Jura in 1924.⁴ It has a variety of synonyms most common being Mesenteric lipodystrophy and sclerosing mesenteritis.^{1,2} When pathologic component is inflammatory or fatty, the disease is known as Mesenteric panniculitis.^{2,5} When fibrosis is the dominant component, it is known as Retractable mesenteritis.^{2, 4, 5}

Retractable mesenteritis is the more invasive form of Mesenteric panniculitis, which is complicated by fibrosis and retraction.⁵ Most patients present as a benign, slowly progressive course. The outcome of the disease is usually favourable.³ It is a non-specific inflammation.⁵ The cause of the disease is unclear⁵, it is said to be an auto-immune response to unknown sources, or collagen vascular disease; Ischemia of the mesentery may also be responsible.^{4, 5}

Mesenteric panniculitis is usually associated with idiopathic inflammatory conditions like retro-peritoneal fibrosis, sclerosing cholangitis, Reidel's thyroiditis and orbital pseudotumor.² Mesenteric panniculitis is also reported in association with malignancy. It usually involves the root of mesentery of the small bowel, but can occasionally involve the mesocolon.²

CLINICAL FEATURES

Patients may present with abdominal pain, intestinal obstruction, ischemia, mass or diarrhea.²

Increased ESR or anemia may be seen as the predominant laboratory finding. However, laboratory tests are non-specific.

CASE REPORT

A 65 year old male came to the department of radiodiagnosis for sonography of abdomen and for the complaints of pain in left hypochondrium and left lumbar region since 1 year. The pain was non-radiating and had no aggravating or relieving factors. There was no alteration in bowel and bladder habits. The patient is under regular treatment for the past three years for diabetes and hypertension. Sonography was performed on Siemens Acuson 300x machine.

USG Findings: Ill defined hyperechoic diffuse area seen in left lumbar region. The lesion was surrounded by a hypo-echoic rim, s/o tumour pseudocapsule. Vessels were seen traversing through the lesion. No bowel dilatation or ascites was seen. Considering ultrasound findings, diagnosis of mesenteric panniculitis was suspected and patient was advised CT scan abdomen for further evaluation.

Abdominal CT examination was performed on Siemens Somatom Emo 6 machine with 6 mm and 2 mm sections after bowel opacification using oral and i.v iopamidol.

CT Findings: Ill defined area of increased attenuation was seen involving small bowel mesentery in central abdomen below the level of pancreas. The area measured approx 13.0 x 7.5 x 1.4 cm and separate firm adjacent normal mesenteric fat by tumor pseudocapsule. Mesenteric vessels appear traversing through the lesion. Rim of mesenteric fat seen around mesenteric vessels with surrounding increased density, s/o "Fat ring sign."

No obvious displacement of vessels. Few oval intralésional lymph nodes were seen. Adjacent small bowel loops appear normal. No bowel dilatation or ascites was noted.



1a)

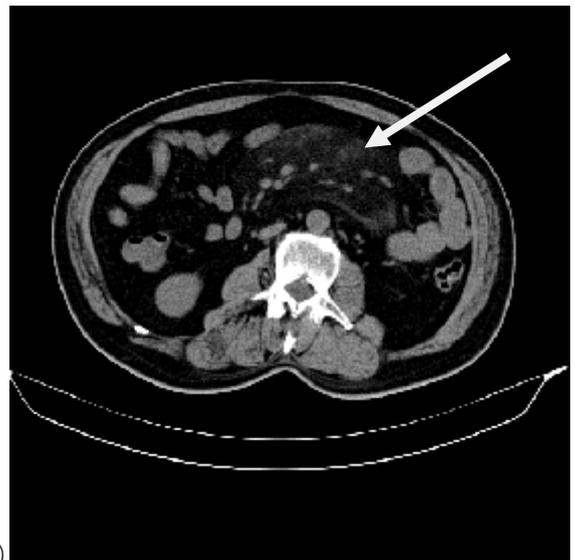


1b)



1c)

Fig 1a-c: Ultrasonography images of the case



2b)

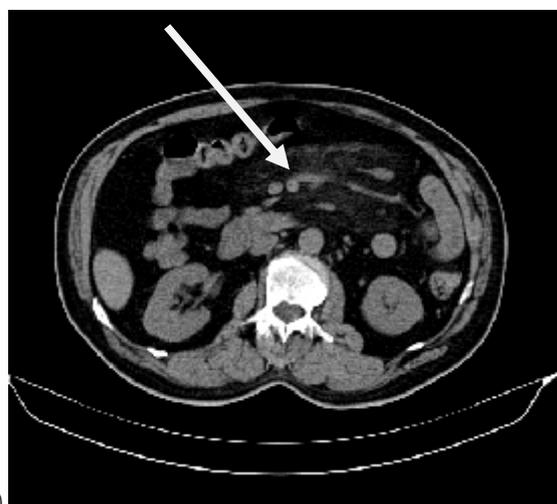


2c)



2d)

Fig 2a-d: CT images of the case



2a)

DISCUSSION

Mesenteric panniculitis can also be called as “Mesenteric manifestation of Weber Christian disease”.¹ This is because of the pathologic microscopic similarity between the affected fatty tissue and that of Weber Christian disease.¹ It mainly affects males^{2,3} and is usually seen between 6th and 7th decades of life.³

It mainly affects the mesentery of small intestine, large intestine is rarely involved.¹

CT Features in Mesenteric panniculitis. CT features vary depending on the predominant tissue component (Fat, inflammation, fibrosis)² Two CT features are somewhat specific for this disease. These are –

1. FAT RING sign –

This sign reflects that fat around the mesenteric vessels are preserved.

2. TUMOR PSEUDOCAPSULE^{3,7}

Other CT features are^{2,5,7} –

- Solitary well defined mass composed of inhomogenous fatty tissue with CT attenuation higher than those of retroperitoneal fat at the root of small bowel mesentery.
- Engulfment of superior mesenteric vessels without vascular involvement.
- No evidence of invasion of adjacent small bowel loops even if they are displaced.
- Calcification within the mass.
- Subtle increase in attenuation in the mesentery without evidence of discrete soft tissue mass (Misty mesentery).² It is not specific for Mesenteric panniculitis.

The diagnosis is mainly made by abdominal exploration. A biopsy is usually necessary for confirmation of the diagnosis.^{1,3}

There is no specific treatment, it regresses spontaneously.⁷ It usually responds to steroids, immunosuppressive therapy and antibiotics.^{1,2,7}

CONCLUSION

Mesenteric panniculitis is a rare disease of unknown etiology and is usually associated with idiopathic diseases.

Left half of the abdomen is more frequently involved and this is consistent with orientation of jejunal mesentery. Mesenteric panniculitis has a propensity for jejunal mesentery.

REFERENCES

1. Popkharitov I Angel, Chomov N Georgi–Mesenteric panniculitis- A case report and review of the literature; Journal of Medical case reports, 2007, 1:108.
2. Horton M. Karen, Lawler Leo P, -CT findings in Mesenteric panniculitis : Spectrum of disease, Radiographics, November 2003, volume 23, Issue 6.
3. Ferrari Teresa Christina A,CoutoM.Carolina, FariaC.Louciana, VilacaTatiane S, Xavier Marcelo A. P –An unusual presentation of Mesenteric panniculitis; Clinics volume 63, Number 6, Sao Paulo 2008.
4. IssaIlyad, Baydoun Hassan - Mesenteric panniculitis : Various presentations and treatment regimens.
5. Daskalogiannaki M. Voloudaki A. Prassopoulos P.Magkanas E. Stefanaki K. Apostolaki E. Gourtsoyiannis N. – CT evaluation of Mesenteric panniculitis, Prevalence and associated diseases, American Journal of Radiology, Feb 2000, Vol 174, Number 2.
6. Shah D.M, Patel S.B, Shah S.R,Goswami K.G -Mesenteric panniculitis- A case report and review of literature,; Indian Journal of Radiology and Imaging, 2005, volume 15, Issue 2.
7. RummanNisreen, George Rumman, DisiNimer, Zagherami, SharabatiBarakat -Mesenteric panniculitis in a child misdiagnosed as appendicular mass: A case report and review of literature; Springer plus 2014, 3:73.