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Plasmacytoma of the mesentry - A case report

Dr. Sugeeth M T[1], Dr. Vishnu H[2], Dr. Nandini Devi R[3], Dr. Geetha N[4]
[1,2,3]Senior Resident, [4]Professor & Head, Department of Medical Oncology, Regional Cancer Centre, Trivandrum 695011, India

***Corresponding author**
Dr. Geetha N
Email: geenarayanan@yahoo.com

Abstract: Extramedullary plasmacytoma represents 3-5% of all plasma cell neoplasms. It is extremely rare in the mesentery. We report the case of 46 year old man who presented with an abdominal mass and was diagnosed to have plasmacytoma of the mesentery. He underwent excision of the mass. There was no evidence of myeloma and he is currently under follow up.
Keywords: Plasmacytoma, mesentry, Extramedullary.

INTRODUCTION

Extramedullary plasmacytoma is defined as a solitary tumor composed of monoclonal proliferation of cells with plasmacytic differentiation in an extramedullary site [1]. Solitary plasmacytomas can be divided into plasmacytoma of the skeletal system and extramedullary plasmacytoma (EMP). EMP is an uncommon entity mostly seen in head and neck region. Involvement of gastrointestinal tract occurs in approximate 5% of cases [2]. However, it is extremely rare in the mesentery. We report the case of 46 year old man who presented with an abdominal mass and was diagnosed to have plasmacytoma of the mesentery.

CASE REPORT

A 46-year-old man presented with history of gradually increasing abdominal pain and abdominal distension of 6 months duration, associated with vomiting, loss of appetite and loss of weight. He did not have fever or any other gastrointestinal symptoms. On examination, he had an irregular, firm, non-tender mass occupying almost whole of the abdomen. Computed tomography (CT) scan of abdomen showed 15.5x12.5 cm lobulated contrast enhancing soft tissue mass in root of mesentery below the level of head of pancreas (Figure1). No necrosis or calcification was seen. He presented to us following excision biopsy of the mass from an outside hospital. The specimen showed a segment of small intestine with attached mesentery within which a lobulated, encapsulated and focally ruptured 13.5x 12.5x 6.0 cm mass was present. Microscopy revealed sheets of plasma cells with moderate cytoplasm and round nuclei (Figure 2). On immunohistochemistry, the plasma cells were CD138 positive and intensely positive for kappa light chain. They were negative for lambda, CD 56, and cytokeratin. The picture was diagnostic of plasmacytoma of the mesentery.

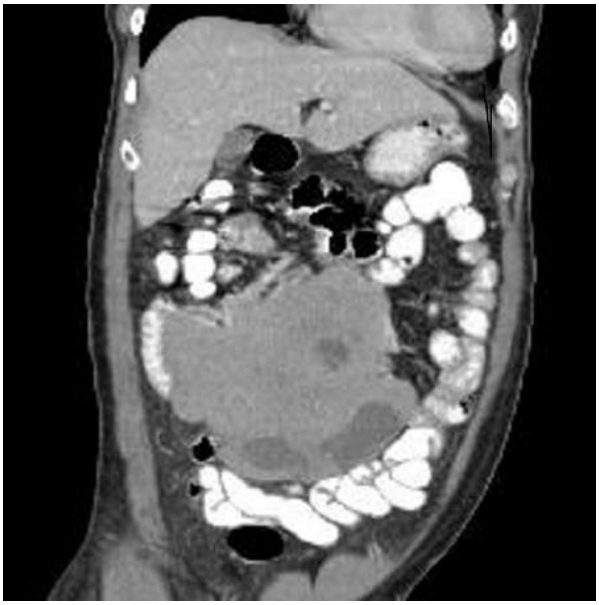

Fig 1: Contrast CT scan (sagittal section) of abdomen showing a 15.5*12.5 cm lobulated contrast enhancing soft tissue mass in root of mesentery below the level of head of pancreas

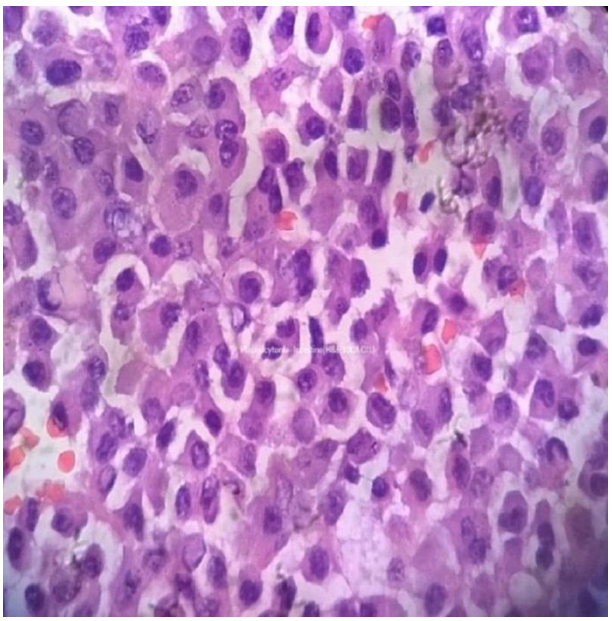

Fig 2: Sheets of plasma cells with moderate amphophilic cytoplasm and round uniform nuclei

His general and systemic examination was unremarkable. His haemoglobin was 10.4 g/dl, total WBC count was 6700 /mm^3, platelet count was 3.53 lakhs/mm^3, and ESR 109 mm /1^{st} hour. Renal and liver functions were normal. Serum LDH was 369 IU/L. Serum calcium was 9.3 mg/dl and serum beta 2 microglobulin was 3.1 mg/L. His immunoglobulin assay showed an IgA fraction of 486 mg/dl, IgG 1497 mg/dl, IgM 171 mg/dl, free kappa 43.4 mg/dl and free lambda 37.6 mg/dl. The serum protein eletrophoresis showed a very minor band in gamma globulin region. Immuno fixation eletrophoresis showed IgA, Kappa. His bone marrow study was normal. Urine Bence Jones protein was negative and 24 hour urine protein was within normal limits. He did not have any bony lytic lesion on skeletal survey. The presence of multiple myeloma was thus excluded. Magnetic resonance imaging of abdomen taken post operatively showed no residual lesion or lymph nodes. The patient is asymptomatic and is on follow up.

DISCUSSION

EMP represents 3-5% of all plasma cell neoplasms. The common sites of EMP are head and neck, upper respiratory, gastrointestinal and central nervous system. EMP denotes a tissue biopsy showing monoclonal plasma cells, absence of evidence of multiple myeloma, a low or absent M-protein concentration and absence of hypercalcemia or renal failure. EMP can be either primary without evidence of multiple myeloma or may occur simultaneously with multiple myeloma. It may precede, accompany or follow the onset of multiple myeloma. Diagnosis of primary EMP requires the exclusion of associated multiple myeloma.

Nishikawa *et al.;* reported a case of EMP arising from mesenteric lymph nodes diagnosed by CT-guided biopsy [3]. A 55-year-old man presented with recurrent urinary tract infection and abdominal CT revealed a mesenteric mass diagnosed as plasmacytoma [4]. An elderly retro positive man with mesenteric plasmacytoma was reported [5]. A 38 year old man with primary mesenteric plasmacytoma and associated nodular amyloid deposit is also described [6]. A 60-year-old woman with plasmacytoma of mesentery was treated with surgery, and intestinal obstruction was the presentation of EMP of mesentery in another man [7, 8].

There are no clear guidelines for treatment of retroperitoneal EMP due to its variable presentation and rarity. It is managed like other EMPs and all 3 modalities viz. chemotherapy, radiotherapy and surgery have been tried with variable results. The prognosis of solitary EMP is generally good and only 10 to 15 percent of patients with EMP ultimately develop multiple myeloma [9]. Since patients with EMP can progress to myeloma they should be closely followed up with monitoring of serum and urine protein levels, skeletal radiological studies, and bone marrow.

CONCLUSION

Extramedullary plasmacytoma of mesentery is very rare. Plasmacytoma should be considered as a differential diagnosis in patients who present with retroperitoneal mass. Follow-up of EMP is crucial, as transformation to multiple myeloma can occur.

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