

CASE REPORT

Malignant Mesothelioma Of Omentum - A Rare Case Report

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ABSTRACT

Malignant mesothelioma commonly arises from the pleura and peritoneal cavity but rarely can arise from the greater omentum. The presentation is non specific and generally have a poor prognosis with high possibility of metastasis. Only a few cases of malignant mesothelioma of greater omentum have been reported. Here we present a case of middle aged male presenting with pain abdomen and gross ascites, later on diagnosed as Primary Omental Mesothelioma. A 50 year old male presented with pain abdomen and gross ascites. CECT Abdomen showed omental nodules. Biopsy and IHC confirmed Malignant mesothelioma of Omentum. He was treated with 6 cycles of pemetrexed carboplatin and is now on maintenance pemetrexed. PETCT post treatment showed near complete resolution of omental nodules with no ascites. He is now on regular follow up. Our case presentation conclude that Omentum can be a primary site of Malignant mesothelioma. Diagnosis of such cases need careful examination and Histopathology with Immunohistochemistry as well as Radiological imaging. In case of metastasis, Systemic Chemotherapy and Palliation play a major role in increasing the Overall Survival.

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INTRODUCTION

Malignant mesotheliomas usually arise from pleura. Omental mesotheliomas are a rare presentation^[1].

Primary omental tumors are mostly asymptomatic, but some patients present with abdominal discomfort, palpable abdominal mass, nausea, early satiety, and weight loss[1]. Other symptoms based on different case reports present in literature are abdominal pain, abdominal distention, constipation, anorexia, vomiting, and fever^[2,3,4,5]. Physical examination may reveal palpation of a painless abdominal mass laterally ballotable. Based on case reports in the literature available, the mass may be palpable in the epigastrium, hypogastrium, upper or lower right or left quadrant or involving the whole of the abdomen. Patients having ascites, weight loss, and peritoneal implants usually signify malignancy. The most common clinical presentation of the primary omental tumor is abdominal discomfort (56%) and mass (35%)^[6,7,8]. Histological examination of mesothelioma of omentum may show an epithelial, sarcomatoid or biphasic pattern. Epithelial type tumors comprise 75% of cases and vary from well-differentiated with tubulopapillary pattern to solid sheets of round or polygonal cells. Such tumors may

mimic carcinomas, and it can be difficult to distinguish epithelioid mesothelioma from a metastatic carcinoma, particularly adenocarcinoma. The sarcomatoid type tumors may be indistinguishable from fibrosarcomas on histology alone. Immunohistochemistry can help differentiate sarcoma and adenocarcinoma. The malignant mesothelioma cells are positive for calretinin, WT1 cytokeatin, and epithelial membrane antigen(EMA) and negative for S-100 protein, Leu-M1, CEA, thrombomodulin, Desmin and placental alkaline phosphatase. Positive immunoreactivity for calretinin greatly increase the accuracy of the diagnosis. Surgery and palliation with intraperitoneal chemotherapy is indicated but still median survival is 1 year^[1]. Here we present a case report of 50 yr old male who, after excision is on maintenance chemotherapy and is doing well after 14 months of diagnosis.

CASE PRESENTATION

A 50 year old male presented with pain abdomen from 2 months insidious in onset and progressive in nature. There was no history of nausea, vomiting, fever or loose stools. On examination,

abdomen was grossly distended with dull note on percussion and fluid thrill was present confirming Ascites. Ultrasound abdomen showed gross amount of fluid in peritoneal cavity .CECT abdomen showed Stranding and nodularity in omentum and gastrosplenic ligament (FIGURE 1).Omental excision biopsy showed fibrofatty tissue with mesothelial cell proliferation arranged in papillary configuration mainly.Individual cells have monomorphic vesicular nuclei , prominent nucleoli and moderate amount of cytoplasm . Focally these cells are invading the fibrocollagenous tissue and Immunohistochemistry was done which showed WT1,P53,EMA positivity and Desmin

negativity,thereby confirming Malignant Mesothelioma(FIGURE 2).4 cycles of Pemetrexed (500mg/m²) and Carboplatin (AUC 6) were given, followed by response assessment. PET CT scan was done which showed FDG avid residual omental thickening for which he was given 6 cycles of maintenannce pemetrexed (500mg/m²) after which PET CT showed near complete resolution of omental thickening. After 14 months of diagnosis ,now the patient is on maintenance pemetrexed with no progression or Ascites . He has improved in performance status and is tolerating well with minimal or no haematological or gastrointestinal toxicity.

Figure: 1-Cect abdomen showed Stranding and nodularity in omentum and gross ascites.

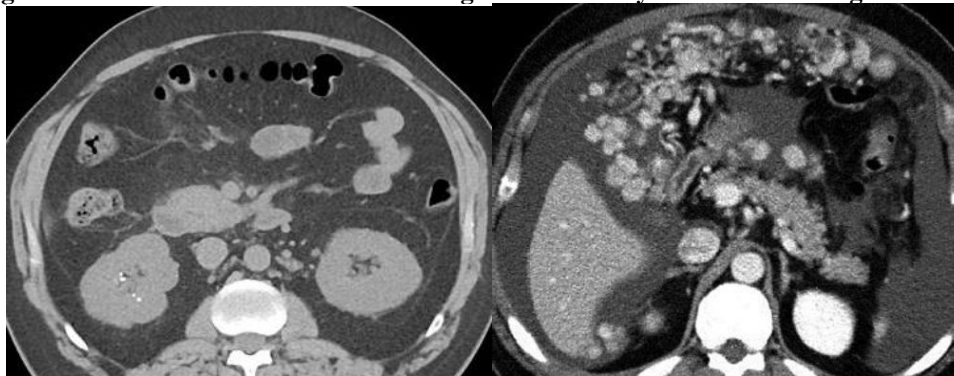
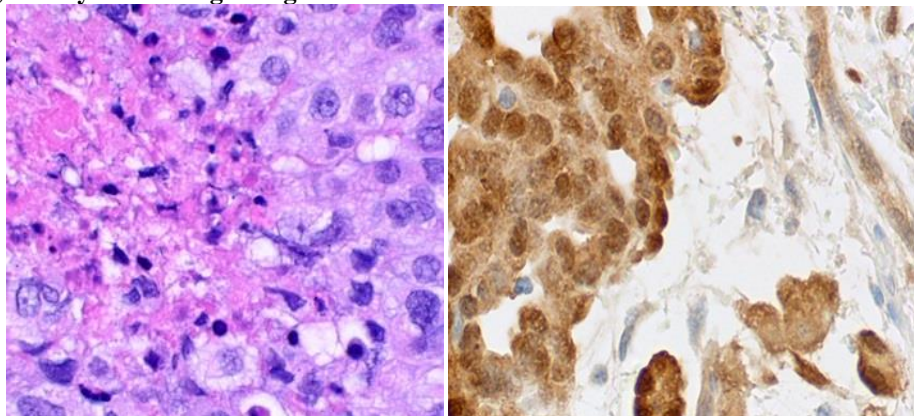


Figure: 2- Omental biopsy showed fibrofatty tissue with mesothelial cell proliferation arranged in papillary configuration mainly.Individual cells have monomorphic vesicular nuclei , prominent nucleoli and moderate amount of cytoplasm . Focally these cells are invading the fibrocollagenous tissue and Immunohistochemistry was done which showed WT1,P53,EMA positivity and Desmin negativity ,thereby confirming Malignant Mesothelioma.



DISCUSSION

Malignant mesothelioma of omentum is a rare presentation .The median age of diagnosis is 53 years [9].A definitive diagnosis can be established only by laparoscopy or open surgery with biopsy. Histological examination may reveal an epithelial, sarcomatoid, or biphasic pattern [10].The prognosis of malignant mesothelioma of omentum is extremely poor because effective treatment is still not present. According to some retrospective studies, the median survival after surgery aimed at palliation combined

with systemic or intraperitoneal chemotherapy is about one year. In patients where aggressive surgery with hyperthermic intraperitoneal chemotherapy was done, the median survival has approached five years [1].The most promising non-surgical approach today in the management of peritoneal mesothelioma is the use of the combination chemotherapy regime of an antifolate (pemetrexed and raltitrexed) and a platinum based (cisplatin) agent with a median survival of about 12-14 months [9].In our case, the patient was treated with 4 cycles of pemetrexed

carboplatin and is now on maintenance pemetrexed. PETCT post treatment showed near complete resolution of omental nodules with no ascites. He is on maintenance chemotherapy and is doing well after 14 months of diagnosis.

CONCLUSION

Our case presentation conclude that Omentum can be a primary site of Malignant mesothelioma .Diagnosis of such cases need careful examination and Histopathology with Immunohistochemistry as well as Radiological imaging. In case of metastasis, Systemic Chemotherapy and Palliation play major role in providing significant Increase in Overall Survival.

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