

## Case Report

### Malignant peritoneal mesothelioma

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#### Abstract

*Malignant mesothelioma is one of the rare disease. It is an aggressive tumor arising from the mesothelial lining of the pleura or peritoneum. In our country there is no reported data or known incidence rate. It has an association with exposure to asbestos and usually has a poor prognosis. Early diagnosis and establishment of a standard treatment for malignant peritoneal mesothelioma is difficult. We report on a case of malignant peritoneal mesothelioma in a 59-year-old man with huge abdominal swelling, ascites and respiratory distress.*

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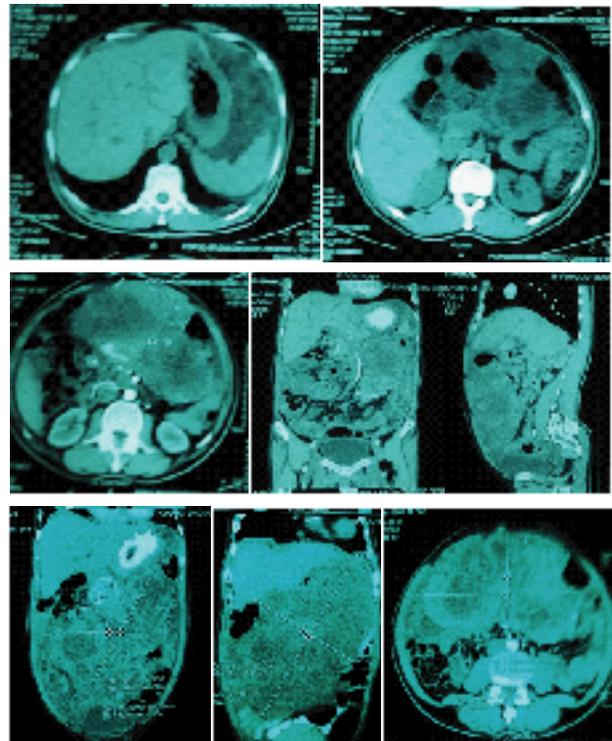
#### Introduction

Peritoneal mesothelioma is a rare condition characterized by diffuse invasion of peritoneal surfaces. The incidence of pleural and peritoneal mesothelioma has universally increased since 1970. In industrialized countries, its incidence is currently estimated 0.5 to 3 cases per million inhabitants in men and 0.2 to 2 cases per million in women<sup>1</sup>. In the United States, mesothelioma, is estimated to occur in approximately 2,500 people annually<sup>2</sup>. Most cases of mesothelioma have been linked to asbestos exposure<sup>3</sup>. Mesothelioma can also result from non-industrial environmental contact with asbestos fibers and para-occupational exposure of house wives who have laundered their husband's work-related cloth; however, some reports have suggested that radiotherapy may also be a cause of mesothelioma<sup>4</sup>. Only 20 to 30% of all mesotheliomas arise from the peritoneum itself<sup>5,6</sup>.

#### Case reports

A 59 years male was admitted with the complaints of gradual enlargement of abdominal swelling and heaviness for 2 months. He developed respiratory distress for 5 days and constipation for 3 days. On examination found a big intra-abdominal lump occupied about two third of the whole abdomen, ill-defined margin and border with huge ascites. Patient felt respiratory distress because of abdominal distention. He was anemic (Hb% 8.2 gm/dl) and hypo-albuminemic (S.Albumin 25.81 gm/L). He was known diabetic with

insulin. On admission his blood sugar was uncontrolled (18.5 mmol/L). CT scan of whole abdomen suggest intra-abdominal soft tissue sarcoma with invasion at pancreas and greater curvature of stomach.



Cytology by CT guide Core biopsy from abdominal mass revealed poorly differentiated adenocarcinoma. Immunohisto-cyto-chemistry reported compatible with myxoid/round cell liposarcoma.

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His CEA was 1.94 ng/ml and CA 19.9 was <3 U/ml. After prepare the patient, high risk bond was taken and exploratory laparotomy done. Huge amount (about 1.5L) of hemorrhagic ascetic fluid was sucked out. Then the big lump found extending from left hypochondriac region to right iliac region with multiple nodular surface, engorged vessels and grapes like lesion which cover the whole mass. The mass occupied the greater omentum, adhere to greater curvature of stomach, body of the pancreas, hilum of the spleen and transverse colon. The stomach was hugely enlarged with the weight of the lump. There were multiple grapes like lesion around the whole abdomen involving both parietal and visceral peritoneum. The grapes like nodules occupied the pelvic cavity. The nodules were filled with fluid, fragile and can easily detached. The lump was dissected as debulking manner for palliative propose saving the viscera and great vessels. Total removal mass was about 6 kg. Abdomen was closed keeping wide bore drain tube. Histopathology of the mass lesion reveled malignant mesothelioma.



## Discussion

Malignant peritoneal mesothelioma (MPM) is an aggressive neoplasm, which arises from serous membranes, such as the pleura, pericardium and peritoneum. The incidence rate of malignant mesothelioma is less. Only few are reported. In our institute this is the first reported case. Pleural mesothelioma is more common than peritoneal mesothelioma. And most of the case there is exposure of asbestos either directly or indirectly. It is believed that

peritoneal mesotheliomas may arise after longer and heavier periods of asbestos exposure than pleural mesotheliomas. But in our case patient gave no history of exposure or contact with exposure person. Malignant peritoneal mesotheliomas are most commonly diagnosed during the fifth to seventh decades of life<sup>2</sup>. The prognosis of malignant peritoneal mesothelioma is very poor, with a median survival of only about one year<sup>2</sup>. During the last 10 years, a cytoreductive surgical approach combined with perioperative hyperthermic intraperitoneal chemotherapy (HIPEC) has been used by a few teams and has resulted in dramatically improved median survival approaching 5 years for patients undergoing such treatment<sup>7,8</sup>. While this aggressive therapy can be associated with significant morbidity. Hyperthermia has direct cytotoxic effects and increases the depth of chemotherapy penetration. The most common causes of death from MPM are bowel obstruction, cachexia, and pulmonary thromboembolism<sup>8</sup>.

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