Aggressive malignant abdominal mesothelioma

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A 32-year-old Filipino female, working as an x-ray technician, presented to the Emergency Room (ER) with acute abdominal pain for one day. The pain was mainly on the left side and left hypochondrium. She had recurring abdominal pain before but not significant to worry her. She also complained of abdominal distension, which she noticed one week ago. The abdominal pain is associated with frequent vomiting and low grade fever. When she was examined in ER, she was in pain, pale and anxious. The pulse rate was 82/mimutes and the temperature 37.8^{o}C. Other vital signs were within normal range. Abdominal examination revealed fullness in the left hypochondrium with marked tenderness but negative rebound. Bowel sounds audible. No sacral or lower limb edema. Emergency room investigations showed white blood count-15000 with 91% neutrophil, hemoglobin 9 grams. Abdominal ultrasound (US) showed a huge mass mainly in the left hypochondrium. The origin of the mass cannot be identified by US. A computerized tomography scan showed a mass in the left side of the abdomen crossing the midline with a necrotic centre. No lymph nodes enlargement. Liver, spleen, pancreas and both kidneys were normal in size, shape and position. Since the patient presented to ER in an acute state (acute abdominal pain) with fever, vomiting and leucocytosis a plan for exploratory laparotomy was put forward. At laparotomy, a huge hemorrhagic necrotic mass was found with hemoperitoneum. The mass arising from the root of the mesentry at the doudenojejunal junction. The blood was evacuated (1500 cc) and the necrotic mass excised and was sent for histopathology. Patient transfused intra-operatively with 2 units of blood. The result of the histopathology revealed malignant mesothelioma of peritoneal origin. The hospital course of the patient runs smoothly, and she was discharged after 7-days and referred to an Oncology Center. Abdominal mesothelioma is a neoplasm arising from the mesothelial surface lining the abdominal cavity. It is less frequent than that of the pleura.[1] It is a rapidly growing and fatal malignancy with a median survival of less than 1-year. The relation between pleural malignant mesothelioma and asbestos is well recognized since it was described in 1960[2] but implication of asbestos exposure in the etiology of the peritoneal type is less obvious. This patient history is giving no obvious exposure to asbestos but as she is working in the Radiology Department as an x-ray technician she is well exposed to x-ray, but the effect of radioactivity on induction of mesothelioma is still disputed.[4] There are several reports linking malignant mesothelioma to radioactivity due to radiation therapy.[4]

This report describes a classical presentation of malignant abdominal mesothelioma. This patient presented with acute abdominal pain for short duration of one day. The pain was either resulting from bleeding within the tumor or due to torsion of the tumor or due to hemoperitoneum following rupture of the rapidly growing tumor. In this case, the most likely cause is the hemoperitoneum, which was found during the laparotomy. The increase in the abdominal girth is either due to the rapidly growing tumor or due to the ascites. Other presentations seen in this case were moderate anemia, low grade fever and ascites, which are all seen in cases of malignant mesothelioma. In this case, we are unable to detect secondaries, which is a rare presentation in malignant mesothelioma. In the literature, 2 histological types of peritoneal mesotheliomas were described.[1] The fibrosis type and the epithelial type. The epithelial type, which can be benign or malignant and most of cases occur in males over 40 years.[1] The fibrous mesothelioma (sarcomatous), as in this case, which is difficult to diagnose microscopically, looks like a fibroma, unless helped by tissue culture.[1] The treatment options of malignant mesothelioma include surgery, intraperitoneal chemotherapy and whole abdominal radiation or multimodality therapy, which were suggested that might prolong the survival in patients with peritoneal mesothelioma.[5] Although peritoneal mesothelioma is rare, progress in its management has occurred, survival has been extended and selection factors by which patients may be allocated to aggressive management strategies have been defined.[6]

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