Biphasic Cystic Peritoneal Mesothelioma – Diagnosed On FNAC

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Sir,

Mesothelioma can occur in the peritoneum, pleura, pericardium and tunica vaginalis testis. Thirty seven year old farmer presented with gradually increasing abdominal distension since 3 months. He was a chronic alcoholic for last 30 years and also hypertensive (160/104 mm Hg) at the time of admission. On examination there was a non-tender, generalised swelling of the abdomen. The umbilicus was slightly stretched out. Liver was palpable 3 cm below the costal margin. Bowel sounds were present.

Ultrasound Abdomen showed a multiloculated cystic mass with intermingled solid areas lying anterior to the bowel loops with multiple internal echoes, septae and thickened walls. It extended from the inferior surface of liver into the pelvis behind the urinary bladder. Bowel loops were found lying separately. Colour Doppler showed extensive vascularity (Diastolic flow ++). Ultrasound guided FNAC showed dual cell pattern with spindle cells having hyperchromatic nuclei as well as medium sized cells with eccentric nuclei. Cytoplasm was moderate in amount and basophilic with vacuolations in some. Bi and multi nucleated cells were also present. A diagnosis of biphasic mesothelioma was made later confirmed histologically. Patient was lost to follow-up.

Pleural mesotheliomas are five times more common than the peritoneal. Peritoneal mesotheliomas, may have the latent period as long as 40 years following initial asbestos exposure. The extremely rare cystic variant is a separate entity that has no relation to previous asbestos exposure [1,2].

Three histological types of mesothelioma reported are - Epitheloid (50-70%), Sarcomatous (10-15%) and Biphasic (20-40 %) [1]. The epitheloid type is a diffuse tumour often surrounding and encompassing the viscera comprising of malignant epithelioid cells. Sarcomatous type grows as a large, encapsulated, solid, locally invasive mass with presence of spindle shaped cells and reticulum fibres [3]. Biphasic mesothelioma is the second-most prevalent type and unlike the more distinct cell structures of epithelioid and sarcomatoid mesotheliomas it exhibits a more varied structure. In fact it is named as such because of presence of both epithelial and spindle cells [3,4]. The structure of such intermingled cells can vary from one case to another. Sometimes, individual epithelioid and sarcomatoid cells mix together as patchwork while in others the cells assemble in larger clusters [1].

Due to this combined nature of biphasic mesothelioma, extreme precision is mandatory in the diagnostic process. Best is to examine more than one section during biopsy thus improving the chances of identifying both types of cells. Diagnosis by cytology is very difficult.

History of asbestos exposure is important [2]. In the present case presence of both cell patterns clinched the diagnosis.

Regardless of the type, treatment typically involves a multi-modal therapy with surgery followed by chemotherapy and/or radiotherapy. Surgery is usually done to relieve the symptoms. Palliative care is required in diseases diagnosed late. The expected survival time is variable with an average of 8.5 months in epithelioid, 7 months in sarcomatoid and 6 months in biphasic mesotheliomas [3].

In conclusion, diagnosing biphasic mesothelioma is important so that the treatment modality and prognosis can be estimated.

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