

## Malignant Pleural Mesothelioma - A Case Report.

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**Abstract :** Malignant pleural mesothelioma is a rare neoplasm which arises from mesothelial surface of pleural and peritoneal cavities, tunica vaginalis and the pericardium. We report a case of malignant pleural mesothelioma who presented with chest pain and was found to have malignant pleural mesothelioma. The presentation, diagnostic work up, of this interesting case is discussed and the current literature pertaining to mesothelioma is reviewed.

### INTRODUCTION

Mesothelioma is a rare neoplasm that arises most commonly from the mesothelial surface of pleural and peritoneal cavities, tunica vaginalis or the pericardium. It is a disease of elderly and males are affected most. A strong etiological correlation with asbestos exposure is well proven. Unusual presentations are also reported, through rarely. We report here one such case.

### CASE REPORT

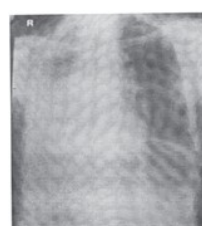
An 80 year old male, an agriculturist presenting with chest pain with breathlessness for CT thorax. Patient's xray taken outside shows homogenous radio-opacity involving mid and lower zones of right lung field with obscuration of right costophrenic angle. It is seen to silhouette with right hemidiaphragm and cardiac shadow on right side, inhomogenous radio-opacity in the right upper zone. Homogenous radioopacity is noted in the right upper zone along the chest wall s/o nodular pleural thickening; no e/o bony lesion. There is mild mediastinal shift to the right with crowding of ribs on the right side s/o volume loss.

CT findings are concentric irregular nodular pleural thickening – costal, mediastinal, diaphragmatic, with abrupt cut off the right lower lobe bronchus, underlying collapse of the right lower lobe, loculated right sided pleural effusion with minimal left pleural effusion, multiple enlarged necrotic right paratracheal lymph nodes. These imaging findings raise two possibilities: 1. Malignant pleural thickening (? mesothelioma) with involvement of mediastinal structures and complete collapse of right lower lobe with right pleural effusion. 2. Malignant neoplasm of the lung parenchyma in right lower lobe in hilar and infrahilar extension with pleural dissemination.

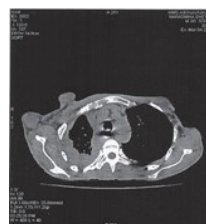
Following the CT scan, USG guided FNAC of pleural nodule and pleural fluid aspiration was done. Biopsy confirmed the diagnosis of MPM.

### DISCUSSION

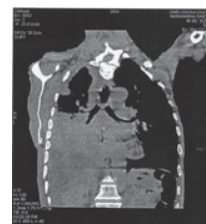
MPM is a rare neoplasm with increasing incidence in developing countries due to exposure to asbestos. Our patient had no known history of asbestos exposure, which may be in part due to decreased awareness or poor occupational health control measures with respect to asbestos exposure in India<sup>1</sup>. Pleural mesothelioma as seen in India, most commonly presents in fifth to seventh decades of life. MPM is a rare tumor even in Western world and still rarer in India. The incidence in men ranges from 7-13 per million per year. In population unexposed to asbestos, it is still rarer, with reported incidence of 1-2 per million per year<sup>2</sup>. MPM usually occurs in males with a male to female ratio of 2.6:1. It is usually related to asbestos exposure, though rarely it can occur in patients not exposed to asbestos. In such cases, the postulated correlation is operation of other carcinogens, genetic factors, and viral



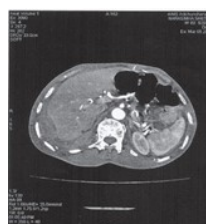
**Fig.1:** Chest x-ray: There is homogeneous radio-opacity involving mid and lower zones of right lung field with obscuration of right costophrenic angle. It is seen to silhouette with right hemidiaphragm and cardiac shadow on right side. Inhomogenous radio-opacity in the right upper zone. Homogenous radioopacity noted in the right upper zone along the chest wall s/o nodular pleural thickening. No e/o bony lesion. There is mild mediastinal shift to the right with crowding of ribs on the right side s/o volume loss



**Fig.2:** NCCT shows concentric irregular nodular pleural thickening



**Fig.3:** NCCT: Abrupt cut off the right lower lobe bronchus, Underlying collapse of the right lower lobe. Pleural effusion. Concentric irregular nodular pleural thickening-costal, mediastinal, diaphragmatic



**Fig. 4:** CECT: Enlarged necrotic subcarinal nodes



**Fig 5:** CECT: Diaphragm involvement, ascites



**Fig 6:** Lung Window coronal sections: Nodular pleural thickening, collapse of the right lower lobe. Diffuse interstitial thickening with patchy consolidation in the upper and middle lobe.

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