Malignant pleural mesothelioma with nodular goiter

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Abstract

Malignant pleural mesotheliomas are primary tumors arising from the mesothelial cells that line the pleural and peritoneal cavities, most are related to asbestos exposure. There is seldom report about malignant pleural mesotheliomas presenting with other tumer. We describe a patient with malignant mesothelioma and nodular goiter who has no history of asbestos exposure. The patient was surgically treated. [Life Science Journal. 2009; 6(1): 37 – 39] (ISSN: 1097 – 8135).

1 Introduction

Malignant pleural mesotheliomas are primary tumors arising from the mesothelial cells that line the pleural and peritoneal cavities, most are related to asbestos exposure. The tumour may eventually encase the entire lung. Local spread also occurs into nearby structures, such as the lung, chest wall, or the heart. Mesothelioma is far more common in men than in women, at a ratio of 4 : 1. Malignant mesothelioma is very rarely curable, either by surgery, radiotherapy, or chemotherapy. Treatment is therefore aimed at controlling symptoms and prolonging survival, rather than trying to remove the tumour and there is seldom report about malignant pleural mesotheliomas presenting with other tumor[1]. Our patient with no history of asbestos exposure presenting with malignant mesothelioma and nodular goiter was surgically treated.

2 Case Presentation

A 40 years old man presented with a history of left chest pain for 1 year and cough, chills, fever for four weeks. He also had complains of enlarged thyroid gland. On examination there was bilateral goiter and decreased breadth sounds in the lower lobe of left lung. Chest x-ray revealed an isolated mass with smooth and round edges in the lower lobe of left lung and Computed Tomography (CT) of the chest revealed a round and soft mass in the left lower lobe of about 20 cm × 18 cm × 10 cm with uniform density, smooth edge's and with no enlarged mediastinal lymph node (Figure 1). Color Doppler flow imaging (CDFI) was performed and showed multiple cystic lesion on the right side of the thyroid while on the left side solid lesions. The patient underwent lobectomy of the lower left lung as the tumor has not invaded the parietal pleura.

Histopathology: frozen section of the specimen showed low grade malignant pleural tumor with fiber sclerosis (Figure 2). After the recovery from the chest wound the patient was transferred to thyroid surgery on postoperative day 8, where he had bilateral subtotal thyroidectomy. The histopathology specimen measured 4 cm × 3 cm nodule in the lower part of left thyroid and and number of nodules on the right. Histopathology examination showed nodular goiter with active local epithelial cell proliferation (Figure 3). After a few days of postoperative care the patient was discharged.

3 Discussion

Pleural mesothelioma do not appear to be associated with smoking in contrast to lung cancers. Development of mesotheliomas has been associated with relatively short term asbestos exposure of 1 to 2 years or less occurring after 20 to 25 years. Although approximately 80% of patients with malignant pleural mesothelioma have a history of asbestoses exposure, only approximately 10% of those with asbestose exposure acquire mesothelioma, which

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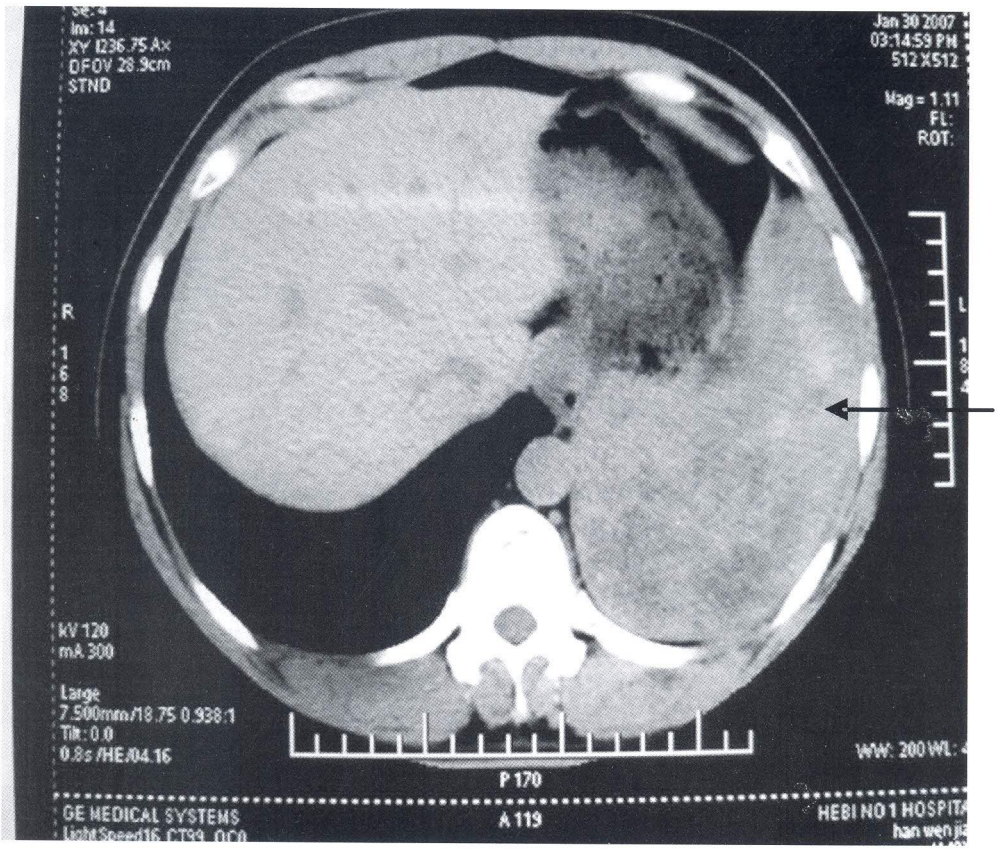

Figure 1. Computed tomography scan. The arrow showed pleural mesothelioma.

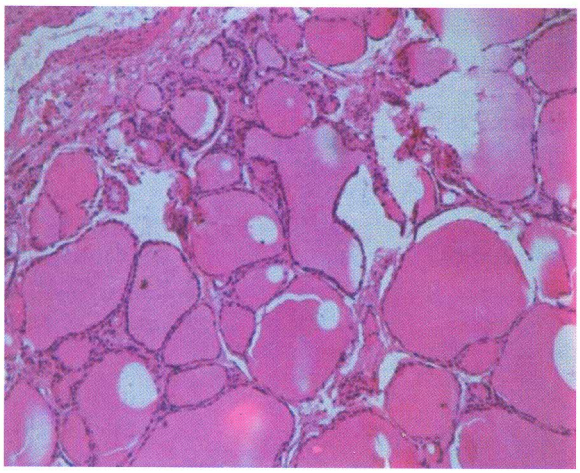

Figure 2. Haematoxylin and eosin-stained section of pleural mesothelioma (× 200).

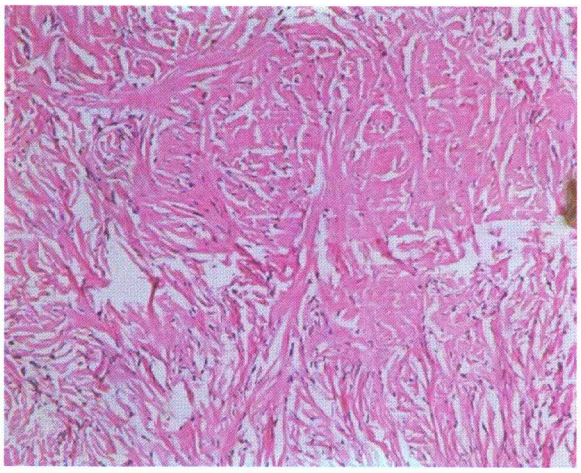

Figure 3. Haematoxylin and eosin-stained section of nodular goiter (× 100).

suggested other factors may be important either independently or as cofactors in the development of this malignancy. Although approximately 50% of mesotheliomas metastasize, the tumor generally is locally invasive and death usually results from local extension[2].

Clinical manifestations: dyspnea and pleuritic pains are the most common presenting complaints of patients with malignant pleural mesotheliomas. The major diagnostic

problem is differentiation from peripheral pulmonary adenocarcinoma or adenocarcinoma from an extra thoracic primary site with pleural metastasis[3]. Although needle biopsy is a safe, effective, and easy way to diagnose the tumor, an open biopsy is often necessary and even the later procedure may not provide a definitive diagnosis of the origin of the tumor. There has been no consensus in the literature guiding the appropriate management of patient with malignant pleural mesotheliomas. This has been due primarily to a lack of convincing data identifying any single treatment modality or combination that might offer a meaning full and significant improvement in survival or quality of life[4]. The majority of patients presenting with malignant pleural mesotheliomas are not candidates for radical surgical resection due to unresectable. Malignant pleural mesotheliomas has a high risk of mortality and surgery has not yet been clearly proven to have a significant beneficial impact on survival, so just applied to highly selected patient population. Our patient got benefited from the surgical intervention because of low grade malignant and isolated tumor. Malignant pleural mesothelioma has been associated with hypoglycemia, arthralgia, clubbed fingers, autoimmune hemolytic anemia, antidiuretic hormone secretion in the previous literature[5]. To the best of our knowledge no case has previously been reported of patient presenting with malignant pleural mesothelioma and nodular goiter. We therefore speculate that the malignant pleural mesothelioma and nodular goiter may have internal relations, but we do not know this for certain by now.

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