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Study of characteristics and behavior of malignant pleural mesothelioma patients in Cairo and Fayoum University hospitals.

Thesis

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Abstract

Background: malignant pleural mesothelioma is a challenging disease with regard to diagnosis and treatment; early and accurate diagnosis is important. MPM caused by asbestos exposure has a long latency period. A ban on asbestos use may not be apparent in decreased incidence in the population until after several decades .

Aim of the work: to study the behavior and characteristics of MPM patients in Cairo and Fayoum university hospitals.

Subjects and methods: the study was performed on 90 patients of MPM in the period from December 2015 to May 2017. All patients were subjected to full history taking, full clinical examination, radiological evaluation, pleural fluid aspiration for chemical and cytological analysis, pleural biopsy for histopathological examination and immunohistochemical staining when indicated.

Results: The mean age of the studied patients was 60.57 (± 12.05), 65.6% were males and 34.4% were females. The occupational exposure to asbestos was 13.3% . Regarding radiological pleural affection, 67.7% had right sided pleural affection, 30.3% had left sided affection and 2.2% had bilateral affection. Pleural involvement was in the form of pleural effusion (93.3%), pleural thickening (52.2%), pleural nodules (11%) and pleural plaques (1.1%). 80% of cases were diagnosed by thoracoscopic pleural biopsy, 18.9% by ultrasound guided biopsy and 1.1% by surgery. Regarding the histopathological subtype of mesothelioma , 86.7% of cases were epithelial subtype, 1.1% was sarcomatoid subtype and 12.2% were biphasic subtype. Immunohistochemical staining was done for 25 cases to confirm the diagnosis, 22 cases of the epithelial histological subtype and 3 cases of



the biphasic subtype. calretinin was positive in 83.3% of cases , CK7 was positive in 88.9% , CK5/6 was positive in 62.5% and D2- 40 was positive in 50% of cases.

Conclusion: Malignant pleural mesothelioma had a male predominance (65.6%). Occupational exposure to asbestos was present in 13.3% of cases. The pleural affection was mainly on right side (67.7%) in the form of pleural effusion, pleural thickening, pleural nodules and pleural plaques. Thoracoscopic pleural biopsy was done for 80% of cases. The main histopathological subtype was epithelial (86.7%). Immunohistochemical markers (Calretinin, CK7, CK5/6 and D2-40) were done in some cases to confirm the diagnosis. Calretinin was positive in 83.3% of cases and CK7 was positive in 88.9% of cases.

Key wrods: malignant pleural mesothelioma, asbestos, Cairo, Fayoum, immunohistochemical markers.

