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Clinico - radiography & pulmonary functional assessment of patients with diffuse parenchymal lung diseases in Al -Fayoum Governorate

Thesis

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Summary

Diffuse parenchymal lung diseases constitute a heterogeneous group of lung diseases; including more than two hundred different interstitial diseases. DPLD is mostly chronic and associated with high morbidity and mortality. They are characterized by impaired gas exchange and diffuse infiltrates on chest radiology **(Clement et al., 2010).**

The diagnostic reasoning is based on the joint analysis of clinical, radiological and pathological aspects. Diagnosis and classification of DPLD patients was made corresponding to the international consensus statement of American Thoracic Society (ATS)/European Respiratory Society (ERS) recommendations **(ATS/ERS 2002)**.

The DPLD is classified into four clinically distinct groups: (1) ***ILD of known association*** (e.g., collagen vascular disease, hypersensitivity pneumonitis secondary to exposures), (2) ***granulomatous ILD*** (e.g., sarcoidosis), (3) ***other rare ILDs*** (e.g., lymphangioleiomyomatosis, pulmonary Langerhans cell histiocytosis), and (4) ***idiopathic diseases*** (idiopathic interstitial pneumonias [IIPs]) **(Griese et al., 2009)**.

This research studied clinical, radiological and functional characteristics of DPLD patients in Fayoum Governorate to assess the prevelance and percent of each constituent of DPLD.

This study included 100 patients with DPLD who were admitted in the chest department, Fayoum University Hospital, Fayoum Governorate. They were 28 males and 72 females with their ages ranged from 8 to 85 years old.

All patients were subjected to full history, clinical examination and routine laboratory investigations. Pulmonary function tests: ABG, spirometry, 6MWT. HRCT chest, echocardiography with PASP estimation. Bronchoscopic examination BAL and transbronchial biopsy when indicated. Lung biopsy through medical thoracoscopy, VATS or open biopsy when indicated. Pathological interpretation and statistical analysis.

The smoking history in the study group was smokers 15 patients (15.0%), ex-smokers 3 patients (3.0%), passive smokers 2 patients (2.0%). The Biomass exposure in the study group was positive in 21 patients (21%). The raising birds history was positive in 73 patients (73%) of the study group. Family history was positive in 5 patients (5%) for diffuse parenchymal lung diseases. GERD history was positive in 58 patients (58%). Pulmonary hypertension was found in 42 patients (42%), and right ventricular dilatation in 16 patients (16%).

Methods of diagnosis in different patients were, the biopsy was done for 25 cases (25%), Transbronchial lung biopsy was done in 13 patients (13%), transbronchial cryo biopsy in one case (1%), radiology guided biopsy was done in 7 cases (7%), medical thoracoscopic biopsy was done in 2 cases (2%), VATS biopsy in one case (1%), open lung biopsy in one case (1%), and characteristics clinical and radiological features in 75 patients (75%).

Among the study group the idiopathic interstitial pneumonia was the predominant diagnosis in 51 cases (51%) followed by DPLD of known cause in 33 cases (33%) then granulomatous DPLD in 12 cases (12%) and lastly other forms of DPLD in 4 cases (4%).

In the idiopathic interstitial pneumonia group the IPF cases were 18(18%), the NSIP cases were 11(11%), the COP cases were 8(8%), the RPILD cases were 5(5%), the DIP was 1(1%) case. The Idiopathic LIP was 2 cases (2%), and lastly Idiopathic PPFE was 6(6%). The DPLD of known causes include Collagen vascular disease associated DPLD 10 cases (10%), Chronic Hypersensitivity Pneumonitis were 14 cases (14%), malignancy 8 cases (8%), alveolar proteinosis was one case (1%). The granulomatous DPLD includes sarcoidosis which was seen in 11 cases (11%) and TB one case (1%). The other rare forms of DPLD were LAM 3 cases (3%), idiopathic pulmonary hemosiderosis one case (1%).