Fayoum experience in the ultrasonographic evaluation of diffuse parenchymal lung disease

By

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Abstract

Objective: Chest ultrasound has many uses, both diagnostic and interventional. It may be used for the diagnosis of multiple pleural diseases (pleural effusion, pleural masses, and pneumothorax). It is also used in the diagnosis of diseases
caused by lung parenchymal lesions, such as neoplasms، pulmonary embolism, pneumonia, and lung abscesses.

Aim: This study aimed to evaluate the sonographic features of diffuse parenchymal lung disease (DPLD).

Patients and methods: This study included 120 participants. Sixty of them were diagnosed as having DPLD. For the diagnosis of these cases, we need a full medical history, a detailed clinical examination, spirometry, 6 min walk test، arterial blood gases' analysis, high-resolution computed tomography, and chest ultrasound. The other 60 were studied as controls.

Results: There was a female predominance with a wide range of age. Most of the cases were nonsmokers، breeding birds, and exposed to biomass. All cases had diffuse bilateral B-lines. There was a negative relation between the Warrick score on the one hand and the Bline number, PaO2, 6min walk test, and forced vital
capacity on the other hand. In contrast, a positive relation was demonstrated between the Warrick score and B-line distance and pleural thickness. Most of the studied patients (71.6%) had irregular and thickened pleura and (51.6%) had an abolished lung sliding. **Conclusion** Chest ultrasound has a significant role in the diagnosis of DPLD and also in estimating the severity of the disease according to the number and the distance between B lines. Multiple B-lines in the combination of thickened and irregular pleural line are highly suggestive of DPLD.