Assessment of Respiratory Parameters among Wood factories Workers, Palestine

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Abstract :

Workers in wood factories could deteriorate respiratory functions. This study aimed to determine the influences of working in wood factories on chosen respiratory parameters in Palestine. A case-control study consisted of 71 wood workers "cases" compared to the predicted values for the same spirometry. Forced spirometry was used to measure the forced expiratory volume in 1 second (FEV1) and forced vital capacity (FVC). These values, in addition to the FEV1/FVC ratios and prevalence of restrictive lung disease of the two groups were compared. The results show that there is a significant decrease in the FEV1 (p-value=0.001) and FVC (p-value=0.001) values in wood workers in comparison to the predicted values for the same spirometry. While the FEV1/FVC ratio is considerably increased (p-value=0.001). The prevalence of restrictive lung pattern was 69% among wood workers. We conclude that working in wood factories could result in considerable negative changes in the spirometrical readings, and increasing prevalence of restrictive lung disease.

Keywords: Carpentry; FEV1; FVC; Lung Diseases; Wood Workers.