

## البحث الثاني

(2) بحث مشترك غير مستخلص من رسالة:

عنوان البحث باللغة الإنجليزية:

Parkinson's disease and pulmonary dysfunction.

الملخص الإنجليزي:

**Rationale and background:** Pulmonary functions impairment contributes significantly to morbidity and mortality in Parkinson's diseases (PD). This study aimed to investigate the presence and type of pulmonary dysfunction in (PD) patients, to relate it to clinical data and to study the effect of L-Dopa on it.

**Patients and methods:** Thirty non smoker PD patients who had no history of respiratory disease were included according to inclusion criteria of United Kingdom PD Society Brain Bank. Their mean age was  $(67.7 \pm 8.4)$  years. They were 28 males and 2 females. Fifteen healthy non smoker persons served as age and sex-matched control group. The clinical disability of PD was indicated by Unified Parkinson Scale and Modified Hoehn-Yahr (MHY) Scale. Pulmonary functions were performed during a stable on state of disease and in an off state.

**Results:** Forced vital capacity (FVC) and forced expiratory volume in 1<sup>st</sup> second (FEV<sub>1</sub>) in the PD patients were statistically significantly lower than in the control group. Impairment of pulmonary function was detected in 24 patients (80%). Restrictive defect was observed in 19 patients (63.3%), while obstructive defect was present in 5 patients (16.7%). Correlations studies between pulmonary functions parameters and clinical data showed no significant correlations.

**Pulmonary functions improved after treatment but the difference did not reach statistical significance.**

**Conclusions and recommendations: Pulmonary dysfunction mainly restrictive type is a frequent finding in PD. Irrespective of disease severity, partially responded to levo-dopa. Routine assessment of pulmonary functions is recommended in PD even mild cases without respiratory complaint.**