

**NEUROPSYCHIATRIC DISORDERS AND  
SLEEP DISTURBANCES  
IN PATIENTS WITH  
PARKINSON'S DISEASE**

**THESIS  
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## SUMMARY

**Parkinson's disease** is the most common serious movement disorder in the world, affecting about 1% of adults older than 60 years. Patients with PD have a wide range of neuropsychiatric symptoms including several psychiatric manifestations as well as sleep disturbances.

The aim of the current study was to explore the profile of neuropsychiatric and sleep disorders in patients with PD, to examine the relations between these disorders and the demographic and clinical variables .

The subjects of this study included the following groups:

(1) Patient group: includes thirty patients with PD diagnosed according to United Kingdom PD Society Brain Bank Clinical Diagnostic Criteria (UKPDSBB).

This group was subdivided into:

Subgroup (A) ( 20 patients): - receiving levodopa treatment.

Subgroup (B) ( 10 patients): - not receiving levodopa treatment for at least one month before examination.

(2) Control group: included twenty subjects matching with the patients regarding age and sex.

The patients and control groups were subjected to:

1. Thorough clinical assessment including history taking and examination including routine laboratory investigations.
2. Semi-structured clinical interview for DSM IV (SCID).
3. Mini Mental State Examination (MMSE).
4. Sleep questionnaire

5. Neuro radiological tests: Computerized tomography (C.T.) and/or Magnetic Resonance Imaging (M.R.I.) of the brain to exclude other causes of parkinsonism.

Both patient groups were matched with each other and with control group regarding age and sex. The ratio of male to female patients was (1.1:1). On study of the neurological manifestations in parkinsonian patients, the most common manifestation is bradykinesia which is present in all patients followed by tremors and rigidity.

The most common psychiatric manifestation in PD patients is depression (60% of PD patients). Most of them are dysthymic disorders. The following most common symptom was anxiety 43.3%. Hallucinations and delusions were also reported in percentages of 20%. The difference between patients and control groups was significant as regarding depression but not significant for others.

The most common sleep disorder was nocturia (40%), then sleep maintenance problem (26,7%), bad quality of sleep (23.3%), sleep initiation problem(20%), motor symptoms (tremor,cramps,dystonia) (20%), nocturnal restlessness (20%), excessive daytime somnolence (16.7%), vivid dreams& hallucinations (13,3%).All sleep disorders were higher in patients than in control group .The difference between two groups was significant as regarding nocturia, sleep initiation problem, nocturnal restlessness and motor symptoms (tremor ,cramps, dystonia ) , But not significant for others.

All neurological symptoms are higher in L- Dopa receivers than in L- Dopa non receivers. We found that bradykinesia is present in all patients. Tremors was present in all L- Dopa receivers and 90% of

non receivers .Rigidity, Speech disorders and Postural instability were present in 75% of L- Dopa receivers and 50% of non receivers. There is significant difference as regarding speech disorders, postural instability, freezing symptoms, but not significant for others.

The different types of psychiatric disorders are higher in L- Dopa receivers than in L- Dopa non receivers. There is significant difference between two groups as regarding depression but not significant for others

Also sleep disorders are higher in L- Dopa receivers than in L- Dopa non receivers. The difference between two groups is significant as regarding sleep initiation problem, nocturnal restlessness, nocturia and motor symptoms(tremor, cramps ,dystonia) .

There is significant correlation between duration of illness and bad quality of sleep, sleep initiation problem ,depression .There is also significant correlation between depressive symptoms and bradykinesia, rigidity & tremors. Also there is significant correlation between depression and some of sleep disturbances e.g.( bad quality of sleep, sleep maintenance problem , nocturia, excessive daytime somnolence and vivid dreams & hallucinations. )