

## **PREVALENCE OF PARKINSON'S DISEASE IN AL-KADHIYMIA DISTRICT (BAGHDAD CITY): COMMUNITY-BASED STUDY**

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### **Abstract**

**Background:** Parkinson's disease is a chronic neurodegenerative disorder affects mostly people above 40ys. Studying its prevalence is crucial for health public planning especially as worldwide communities are getting older. There are some worldwide variations in the estimated prevalence rates and the figures are unknown in our country.

**Objective:** To estimate the prevalence of Parkinson's disease in Al-Kadhiymia district.

**Methods:** Community-based study was conducted as cross-sectional survey on random sample of the population of the district. Suspected cases of Parkinson's disease identified during home visits were referred to the neurological department at the University Hospital of Iraqi Medical College in order to confirm the diagnosis of the senior neurologist. Diagnosis is made by identifying at least two cardinal features of the disease (resting tremor, bradykinesia, rigidity and postural instability) in the absence of signs of secondary parkinsonism.

**Results:** 25 cases of Parkinson's disease collected from a random sample of 22,988 individuals (13 were males, 23 were females. 6 lived in rural areas and 19 in

urban). Three cases (12%) were newly diagnosed. Tremor was the predominant symptom of onset (80%). 19 cases had bilateral involvement of the disease, in spite of the unilateral onset of all cases. The crude prevalence rate was 108.75 per 10<sup>5</sup> population. Age adjusted prevalence rates showed constant increase with age. Gender-adjusted prevalence rates were calculated for male 114/10<sup>5</sup> populations and for 103/10<sup>5</sup> population. Residency-adjusted prevalence rates were 114,3 and 94,3 per 10<sup>5</sup> population for urban and rural living respectively.

**Conclusion:** Prevalence rate of Parkinson's disease is just lower than the figures in Europe and North America, but higher than those of Africa and China. It increases constantly with increasing age. There was no significant gender or rural difference in the prevalence rates. The prevalence figure can be applied to the population of Baghdad City because of the similar population structure and characteristics to those of Al-Kadhiymia district.

**Key words:** Parkinson disease, prevalence, Baghdad, Cross sectional study

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### **Introduction**

Parkinson's disease (PD) is a progressive neuro-degenerative disorder, which affects the movement or the control of movement including speech and "body language". Four cardinal signs dominate it: bradykinesia, tremor and rest, rigidity and postural instability. It mostly affects elderly

people with overall prevalence of about 1.6 percent in persons over 65 years of age<sup>[1]</sup>.

The disease is chronic and progressive. Its life expectancy increased since the introduction of L-dopa treatment. Other medical therapies and some recent surgical techniques providing continuous improvement of the disease disability<sup>[2]</sup>.

In addition, the population of the world, in general, is growing older because of the improving health services. This gives an indication that PD will affect more people i.e incidence and prevalence of the disease will continue to rise<sup>[1]</sup>. These facts indicate that the importance of PD as a population health

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