

issue is expected to increase in the near future.

The prevalence of PD is studied worldwide with some variations in the figures<sup>[3-33]</sup>. In 1990 worldwide estimated 4 million people were suffering from PD, approximately one million of them in North America<sup>[1,2]</sup>.

In Iraq, there is no local record about the prevalence of PD or the epidemiological factors that affect it. Therefore, we found that it was necessary to study this subject in order to identify the disease extent and to plan useful measures for health care institutions and personnel.

## **Patients and Methods**

### **Area of the study**

The area chosen for the study was Al-Kadhiymia district, one of the original regions in Baghdad City (Capital of Iraq). It is located north of Baghdad on the western bank of the Tigris River. The total population of Al-Kadhiymia district is 480686 people, according to the Iraqi population survey of 1997 distributed into 38 sectors in urban area and 16 villages in rural one. It was chosen because of:

1. Large number of its population,
2. Its inhabitants are of different social classes,
3. Containing both rural and urban areas,
4. Its proximity to the University Hospital.

All individuals involved in the study were asked to take part in it. Their consent was taken while visiting their families at home.

### **Sample of the study**

A random sample was determined from the general population of the district as follows:

\* For urban area: in each sector, 20% of the families were selected randomly and included in the study.

\* For rural area: 20% of the families living in villages were randomly selected to be enrolled in the study.

The sample was about 23 000 individuals described as families in order to involve all age groups. The random sample was determined and designed in cooperation with the Central Statistical Organization authorities that provided us with a detailed account on the names, locations and numbers of the selected streets and sectors. These numbers were listed by local authorities, in marks at beginning and end of streets.

### **Survey**

This is a community-based study, designed as a cross-sectional survey on the general population. A suitable questionnaire was designed (*see appendix*) in two parts so that the study was run in two phases:

\* Phase 1 (screening phase): Families were interviewed at home. One of the researchers did the interviewing to explain the purpose of the study, ask questions about age and gender of each family member and the presence of any of the following:

- 1- Tremor of the hands "Is there any trembling movement of the hands?"
- 2- Bradykinesia "Is there any slowness of movement during walking?"
- 3- Previous diagnoses of PD "Is there any member who has the diagnoses of PD?"
- 4- Use of antiparkinsonian drugs "Is there any one who is taking L-lopa, Trihexyphenidyl or Bromocriptine tablets?"

Any member who had positive answer would be examined to demonstrate the parkinsonian signs. Patients excluded from further assessment if they had used anti parkinsonian drugs for other indications (e.g. Bromocriptine for pituitary adenoma or prophylactic treatment with anticholinergic drugs in association with dopamine antagonists in patients with psychotic disorder).