

Parkinson's Disease Information Guide



INDIAN ACADEMY OF
NEUROLOGY

A Public Information Initiative

Introduction

Parkinson's disease (PD) is a slowly progressive disease of the brain in which there is a deficiency of dopamine which leads to slowness of all movements, stiffness of muscles, tremors occurring particularly, when the body part is at rest, and tendency to lose balance. The disease usually occurs in older people, starts from one side of the body and slowly, over months and years, progresses to involve the whole body.

Early Symptoms of PD

- Tremors in a hand or a leg
- Loss of expression on face
- Hand-writing becomes small
- Dribbling of saliva from mouth
- Frozen shoulder

Causes of PD

The exact cause of PD is not known. However, it is believed to be caused by some defective gene, some toxin in the environment, or an abnormality in handling of oxygen by the cells.

Genetic form of PD is rare, about 20%. Say, for example, if your father had PD, there is hardly any chance of your developing PD if no one else in your family apart from your father had PD. In India, genetic forms are rare. So far, no genetic test is available to detect and predict the future chances of having PD.

Disease Prevention

Since the exact cause of PD is not known, there is nothing that can be taken in the form of medicine that will prevent one from getting PD.

However, some studies have shown that those who do vigorous exercise are less likely to develop neurodegenerative disorders later in life, including PD.

In USA, some centers have been successful in making a vaccine which can prevent occurrence of PD in animal models. Human studies are also being undertaken, but the results would take a long time to come since it is a very slowly progressing disease.

PD and Parkinsonism

PD is something which progresses very slowly after starting from one side. It has parkinsonian features only and no other problems. Also, the response to PD drugs is very good.

On the other hand, in Parkinsonism, the progression is rather rapid. In four to six years, the affected person may have to use a wheel chair. In addition, people with parkinsonism have features other than parkinsonism like, inappropriate gleefulness, difficulty when looking downwards, stiff extended neck, falling within 1-2 yrs of onset of symptoms, cerebellar features, urinary/sexual symptoms etc. Stiffness of the face and neck, jerks, and hallucinations are also common.

Role of Exercise

Exercise should be started as soon as possible. It has been seen that brisk exercise in animal models produces brain-derived tropic factor which acts as an elixir for brain and prevents further damage of brain cells.

Exercise will depend on the stage of the disease and the specific problem to be addressed. In the early stage, general exercise should aim at:

- Stretching exercises to reduce stiffness
- Strengthening exercises to improve power of muscles
- Balancing exercises. As balance is impaired early in the disease, exercise to improve balance should be done.
- Gait exercises, particularly in the early stage are important as in later stages, the person may become unwilling to do gait exercises. Heel-foot strategy as well as swinging of arms should be emphasized.

Parkinson's Disease and Parkinson-Plus Disorder

Though it is still an ongoing debate among the neurologists regarding the subtle aspects of differences between Parkinson's disease and Parkinson plus disorder, it is important for you to know and remember the following differences.

Firstly, the rate of progression of Parkinson's disease (PD) is much slower than Parkinson plus. For example, if a person with PD will reach a certain level of disability in ten years, a person with Parkinson plus may reach a similar level of disability in two to three years.

Secondly, the effect of medicines is far better in PD, but not so good in a case of Parkinson plus.

Thirdly, a case of PD has features of PD only, whereas Parkinson plus has many other features in addition to those of PD. For example, Parkinson plus individuals may develop dementia, may experience difficulty looking upwards, may start to fall early, may lose control over bladder and stool etc. However, this does not mean that a case of PD will not develop these problems, but they may develop them at a much later stage, i.e., after 8-10 years whereas Parkinson plus patient may develop these symptoms in 1-3 years.

Disclaimer:

This brochure is for the general information of the public and the patients. People should not self-medicate themselves with the medicines and treatments mentioned here. Before taking any of the medications mentioned in the information brochure, please consult your neurologist.

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