Parkinson's the disease are a consequence of



Parkinson's disease is a neurodegenerative disorder, leading to continuous degeneration of motor functions of the patients due to death of dopamine-producing brain cells. In early stages of this disease, the most common symptoms are rigidity, shaking, gradual slownessof movement, and difficulty with walking. Thinking problems and behavioral changes can also be noticed.

Dementia is common among the patients in advancedstages of the disease. Statistically, anxiety and depression are some of the commontraits observed in more than one third of people suffering from PD. More symptomsinclude emotional, sensory and sleep problems. The main motor symptoms are collectively called "parkinsonism", or a "parkinsonian syndrome". Patients' voice tends to stutter and progressively becomes affected as the disease becomes more severe. The motor symptoms of the disease are a consequence of death of cells in substantianigra, a region present in the midbrain.

Due to this, there arises the shortage ofdopamine in these areas. Although the cause for this cell death cannot be properly understood, it involves the build-up of proteins into Lewy bodies presentin the neurons. There is no cure for this disease, however treatment is directed towardsimproving symptoms. Treatment usually starts with the antiparkinson medicationlevodopa (L-DOPA). As the disease advances and neurons continue to be lost, themedications lose their effectiveness.

Moreover, they tend to produce acomplication caused by involuntary twitching movements. However, some forms of rehabilitation and diet plans have been noticed to improve the symptoms. Placingmicroelectrodes

through surgery for deep brain stimulation is now used to lessenthe symptoms complying with motor abilities in cases where drugs prove to beineffective. The organisation of our paper is as follows: First, we explain the objective ofour research followed by discussing the related previous works in this field. Then, we describe our proposed methodology and the experimentation work. Finally, we conclude with accuracy and data analysis results and future scopeof our research which could further better the output.