



Review Article

Parkinson's Disease: Reflection, Evolution and Understanding of the Disease

José Dionísio de Paula Júnior¹, Ronaldo Chicre Araújo², Natália Costa Martins³

¹Department of Post-Graduate Degree in Forestry Science, Federal University of Viçosa (UFV), Viçosa, Brazil

²Department of Psychology, Foundation President Antônio Carlos (FUPAC), Ubá, Brazil

³Department of Pharmacy, Foundation President Antônio Carlos (FUPAC), Ubá, Brazil

Email address:

dionisiodepaula@yahoo.com.br (J. D. de Paula Júnior), rchicre@hotmail.com (R. C. Araújo), natcm@yahoo.com.br (N. C. Martins)

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Abstract: This research is a bibliographic essay that aims to describe the main characteristics of Parkinson's disease (PD). The PD is a disease primary or idiopathic, disorder progressive derived prostaglandins caused by the loss of dopaminergic neurons located in the compact of substance Nigra. The initial symptoms, and its manifestations are difficult to identify, are usually seen during the social harmony, which can be motor abnormalities, such as tremors and irritability posture. The cause of the PD is caused by the degeneration of the neurons of the substance Nigra, where there is a decrease in the levels of dopamine due to destruction of neurons, but the reasons for such degeneration are still unknown. The study consists of a reflexive essay of literature with the goal of understanding the progression of Parkinson's Disease and understand behaviors during the evolution of the disease. Parkinson's disease is a disease only, chronic-degenerative disease, causing their patients with disorders of movement, coordination, muscle strength, as well as decrease the quality of life and lead to isolation and depression.

Keywords: Parkinson's Disease, Substance Nigra, Care

1. Introduction

The Parkinson's disease (PD) was first mentioned in 1817, the English physician James Parkinson, a member of the Royal College of Surgeons, who described the first symptoms of the disease [1]. Thus, the PD can be characterized as an idiopathic disease, disorder progressive derived prostaglandins, caused by the loss of dopaminergic neurons located in the compact of substance Nigra of the brain. This is the second neurodegenerative disease more common throughout the world, characterized by motor symptoms, such as bradykinesia, trembling, rigidity and plastic postural disorders. Thus, the clinical diagnosis is based on neurological examination, family history and changes in the behavior of the person [2, 3].

In this sense, the PD can manifest itself in the secondary form, called Parkinsonism Secondary, related by a pathological process that affects the core brain basis, where some medicinal drugs may potentiate its development [3].

With this, complications resulting from the advancement of secondary Parkinsonism provide changes in emotional behavior, influencing the quality of life of the individual [4]. The main characteristic of the disease is the loss of postural stability, caused by a deficiency in the Central Nervous System, affecting the balance and posture [5].

The present study consists of a reflexive essay of literature with the goal of understanding the progression of Parkinson's disease and understands behaviors during the evolution of the disease.

The main hypothesis for the cause of PD is that individuals with a genetic predisposition, exposure to toxic agents on the environment, they would have the necessary conditions to develop the disease. The initial symptoms, and its manifestations are difficult to identify, are usually seen during the socializing, presenting motor abnormalities, such as tremors and postural discomfort. With this, also provides behavior changes, such as speech disorders, sleep disorders, cognitive and other abnormal sensations. Sensory symptoms,

sensory, mental and autonomic complement this syndrome. Their pathological markers include the loss of neurons of area compact substance Nigra and the accumulation of alpha-synuclein in the cerebral cortex, brain stem and spinal cord. Under the Physiological and pathological, can be regarded as a disease caused by functional changes of dopamine systems, noradrenalin, serotonin and cholinergic [1, 3].

The neurons are the main functional cells of the nervous system, which communicate through synapses, which may be chemical or electrical. The neuronal communication in chemical synapses, is only possible with the presence of neurotransmitters [3, 6]. Thus, in the mesencephalon there is a substance Nigra, called so because of the presence of dark pigment, melanin, and the neurotransmitter active in substance Nigra is dopamine [7].

In neurophysiologic functionality, the substance Nigra projected neuronal fibers for the striatum where they are the "key" to the process of bodily movement through the neurotransmitters Acetylcholine (excitatory) and dopamine (inhibitory). The striated neurons send messages to the centers engines, where the loss of blocking of dopamine in this area of the brain results in a larger amount of excitatory neurotransmitters that inhibitory, leading to imbalance that affects motor characteristics and consequently to the movement [6, 7].

The cause of PD is caused by the degeneration of the neurons of the substance Nigra, where occurs the decrease in dopamine levels due to destruction of neurons, but the reasons for such degeneration is still unknown [3]. Studies direct to genetic factors hereditary with some possible environmental causes that promote the development of disease, in this sense, has not yet identified any specific gene determinant in disease [4].

It is known that the majority of cases of PD have no defined cause, being diagnosed as idiopathic, but there are several forms of treatment which contribute to alleviate the progression of the disease. The treatment for each patient depends on the evolution of the disease; at the beginning are administered medications that are precursors of dopamine [7].

The clinical treatment and pharmacological treatment of the disease is mainly concerned with the replacement of dopamine striatal and neuroprotection, being used for this purpose anticholinergic drug, antidepressants, amantadine, piribedil, dopaminergic agonists and levodopa. The drug Levodopa is a precursor of dopamine, i.e. this drug is converted into dopamine in the brain, administered in conjunction with the Carbidopa or Benserazida, which inhibits the peripheral conversion of Levodopa into dopamine, so that it penetrates the blood brain barrier to uptake in the central nervous system. The response to treatment is highly individual, but the majority of patients demonstrated significant improvement in rigidity, bradykinesia and shudder [8]. Surgical treatment can be used in young patients, in whom medicines do not promote effective effect, the surgery is not a cure, just an alternative to ease the development and provide a better quality of life to the patient [9]. The physiotherapeutic treatment contributes to the preparation of programs of passive exercises and active [10].

Parkinson's disease, the most frequent cause of parkinsonism, is an idiopathic, asymmetrical and slowly progressing disease, resulting mainly from the progressive loss of neurons in the ventrolateral portion of the pars compacta of the substantia Nigra in the midbrain. This neurological disease is characterized by the presence of bradykinesia and at least one other of the three cardinal signs: rigidity, resting tremor, and loss of postural reflexes, usually occurring in persons 50 years old or older. Recently, the importance of the presence of non-central motor symptoms was recognized, such as those produced by the affected autonomic nervous system especially in the digestive system where constipation, dysphagia and sialorrhea may be observed. Pathological difficulty in swallowing, when present in a Parkinson's patient, is usually considered to be caused by the PD, without further investigation. Nevertheless, as mentioned in the literature, several other causes of dysphagia may occur in association with PD. In Parkinson's disease, the prevalence of dysphagia is estimated to be from 32% to 70%. Nevertheless, the risk posed by dysphagia is neglected or underestimated until the patient suffers the first episode of pneumonia, despite the known high risk of aspiration and pneumonia associated with oropharyngeal dysphagia in PD patients [11].

As the disease progresses, the patient presents weight loss, difficulty in chewing and even malnutrition, then there is a need for a diet exclusively drawn up, with the ingestion of proteins suitable, providing for the control of constipation and the adaptation of the patient [4].

The confirmation of the diagnosis of the disease can present trauma for the patient, because he has to learn to deal with the aspects of the disease and the treatment. The impairment of quality of life is something that the patient cannot avoid, even those who find ways to live well with the symptoms are somehow impacted by changes and limitations [3, 4].

The determination of the stage and degree of functional limitation by Parkinson's disease is useful in planning when antiparkinsonian therapy was initiated or adjusted, in monitoring the evolution of the disease and the evaluation of the quality of response to treatment. The non-pharmacological measures comprise a series of habits and measures of special value in disease, by minimizing some of its complications. Such measures are the education, support treatment, exercise and nutrition [2, 6].

2. Depression and Parkinson's

Depression is the affective alteration most studied and spoken today. Classified as a mood disorder, it governs the attitudes of the subjects modifying the perception of themselves, starting to see their problems as major catastrophes. The perception of reality today is based on the first object relations, which function as a prototype, or model for all subsequent relationships. Treated as the disease of modern society, depression has characteristics that can translate a serious pathology or be just another symptom of the subject before a real life situation, that is, its characteristics

can determine a melancholy in itself or be only a symptom constituent of another pathology [12].

Depression is known for the symptoms described as apathy, irritability, loss of interest, sadness, motor retardation or agitation, aggressive ideas, desolation and multiple somatic complaints (insomnia, fatigue, anorexia). Its diagnosis is facilitated by the presence of symptoms and by a good theoretical knowledge. However, its dynamics, its origins, its object relations and its conceptions can still raise questions and lead to misinterpretations prejudicing a possible treatment [12].

The Depression and Parkinson's disease is characterized by a high level of anxiety, pessimism about the future, sadness, irritability, excessive concern with health, suicidal ideation, but with low incidence of suicide, and delusional ideas, feelings of guilt and self-criticism too. Depression and Parkinson's are characterized by high anxiety, pessimism about the future, sadness, irritability, excessive worrying about health, suicidal ideation, but with a low incidence of suicide, and delusions, guilt and excessive self-criticism. There are two causes: psychological (issues related to disease with limiting and even disabling motor consequences) and brain dysfunction (disorders that affect large areas of the brain). Usually the depression in PD is often bimodal, occurring in the initial and final stages, can be classified into two main types: endogenous depression, characterized by neurological degeneration, and exogenous depression, related to the consciousness of patients suffering from progressive neurodegenerative disease and debilitating. When these factors coexist, depression can be considered both as a complication of clinical disease or its treatment [13].

The trajectory of chronicity to PD is a life process reinitiated in the impact of the diagnosis of the disease until the coexistence of the disease. It is a process that is increasingly extended, considering modern technological resources especially medical technologies, which has been contributing in the treatment and control of chronic-degenerative diseases in an effective way, increasing the longevity of patients [13].

3. Conclusion

In view of the literature review, we can claim that Parkinson's disease is classified among the degenerative diseases of the nervous system that manifest the failure of neuronal devices, as incapacitating to renew themselves. In addition, it is important to develop a comprehensive view of the patient's life to qualify the practice multidisciplinary, and this observation can only be performed by analyzing each component of the family, in order to provide a harmony between and a patient's well-being. Parkinson's disease is a

disease only, chronic-degenerative disease, causing their patients with disorders of movement, coordination, muscle strength, as well as decrease the quality of life and lead to isolation and depression.

Thus, it is considered necessary to have a complete knowledge about the pathology and its characteristics in the Parkinsonian Syndromes conditions, on an interdisciplinary scope, since the postural, respiratory, pronators and nutritional limitations are interconnected by the complex neuromuscular connections, which demand full assistance from the interdisciplinary team.

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