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### AN OVERVIEW OF PARKINSON'S DISEASE: A...

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#### ABSTRACT:

Parkinson's disease is a common movement disease considered in neurological practice, but the prognosis and administration is challenging. The prognosis is clinical and every now and then difficult, considering a large variety of motor and non-motor signs and symptoms in PD patients. The clinical administration of PD sufferers is difficult, as selections of drugs are restrained and levodopa is the mainstay of treatment. However, levodopa-induced dyskinesia (LID) is normally considered in Parkinson's ailment sufferers handled with levodopa. This side effect is typically encountered after a long length of treatment, however occasionally, this may also be considered even after a few days or months of treatment. Different types of surgical approaches, such as unilateral pallidotomy and deep talent stimulation, have given very right consequences in PD patients, who can't be managed by way of medicinal drugs alone.

Parkinson's disease (PD) is a neurodegenerative disease and usually begins between the ages of 55 and 65 years. Diagnosis is clinical and sometimes difficult given the large number of motor and non-motor symptoms in PD patients. Patients receiving long-term therapy with levodopa should experience some of the adverse effects seen in patients with Parkinson's disease treated with levodopa. Management of PD is a growing field and targets new treatments as well as improvements in old ones. This side effect usually occurs after a long period of treatment, but sometimes, it can appear after a few days or even after treatment. One of the biggest challenges in the development of potential

neuroprotective therapies is the lack of reliable and sensitive biomarkers of progression. A variety of surgical techniques, including unilateral pallidotomy and deep brain stimulation, have shown very good results in PD patients who cannot be managed with medication alone.

**KEYWORDS:** Parkinson's disease, History, Pathophysiology, Treatment, Herbal drugs.

## INTRODUCTION:

Parkinson's disorder (PD) is the 2d most common persistent progressive neurodegenerative disorder in which the dopaminergic neurons leads to the death[5]. In these the substantia nigra pars compacta (SNpc) and Alpha Synuclein (aSyn) are the intracellular proteins [5]. Parkinson's disorder described by the Dr. James Parkinson in 1817 this is why it is named as 'Parkinson's disease' (PD)[8]. Parkinson's ailment (PD) additionally acknowledged as paralysis agitans [7]. Parkinson's sickness usually happens in the between the age of 55 and sixty five years [7]. This ailment is organized into the two lessons that is Genetic and Sporadic[7]. Parkinson's sickness starts off evolved with the motor signs and symptoms and include with the non-motor symptoms like subjective changes, rest issue, wretchedness, etc[9].

## ETIOLOGY:

The eventuality and diffusion of PD will increase with an age, occurring in 1% of humans over sixty five years of age [5].

The parallel contribution of genes and environmental or lifestyle factors to the pathogenesis of PD is controversial [8]. Age is the most vital risk issue for PD, with a common age of onset of 60 years [8]. The condition entails a gradual and revolutionary degradation of dopamine releasing neurons in the extrapyramidal system, mainly in the basal ganglia [1].

The three cardinal manifestation of Parkinson's sickness are as follows:

- 1). This is a lack in initiating voluntary muscle movement. In an advanced tiers is characterized by means of 'frozen' muscles ensuing in a mask-like facies ; incapacity to care for oneself; impaired postural reflexes[2].
- 2). This is usually of the 'plastic' or 'cogwheel' type, i.e, it gibes way in a series of jerks[2].
- 3). Coarse (3-6 cycles or sec ), repetitive muscle activity , generally worse when the patient is at rest, is usually manifested as a 'pill-rolling' action of the arms and 'bobbing ' of the head [2].

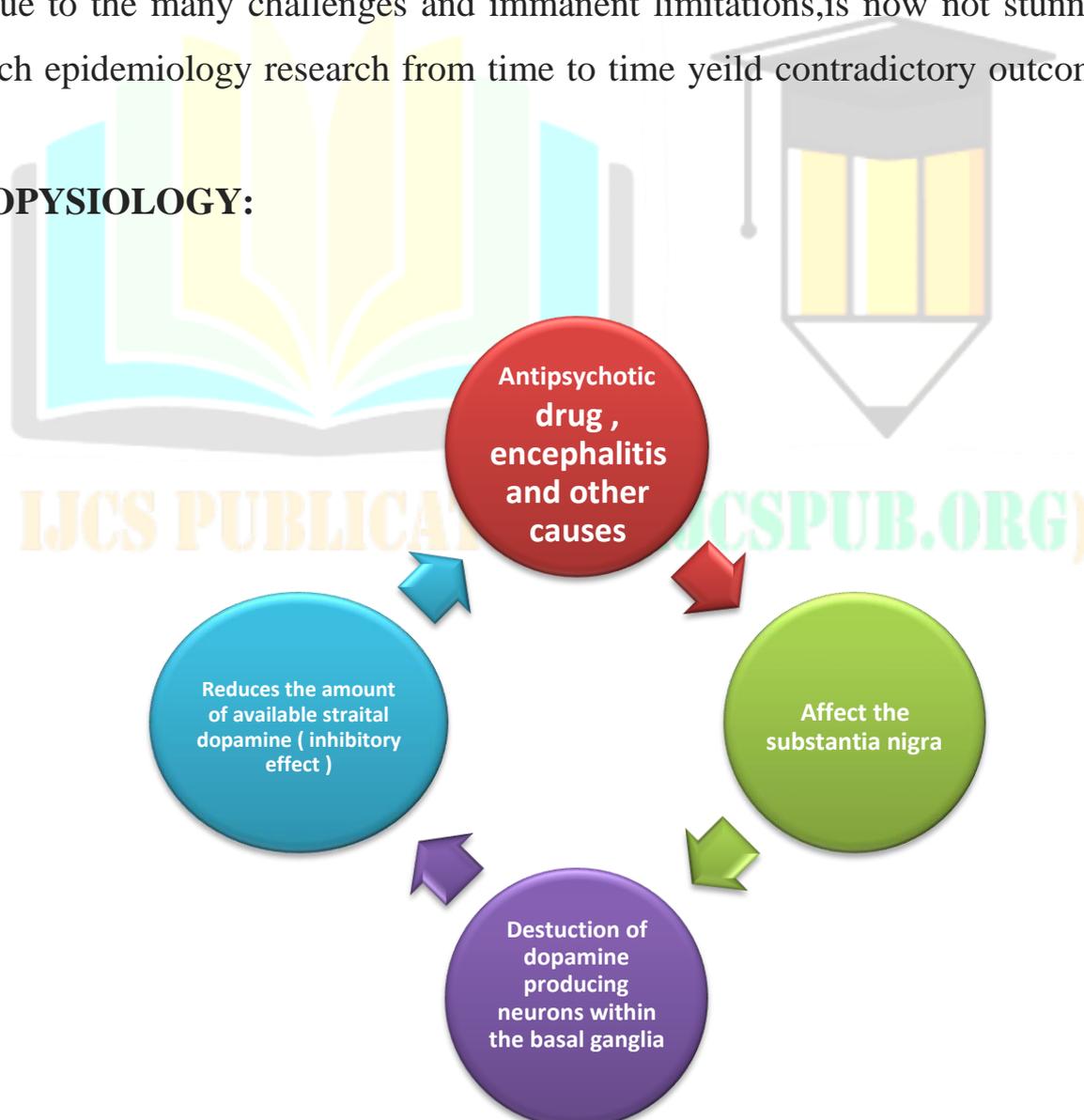
In addition, the affected person may additionally exhibit disturbances in gait , impaired speech , muscle weak spot and autonomic hyperactivity like salivation and schorrhoea. Parkinson's disorder affects both intercourse generally over the age of 50 years and mild tremor at rest is regularly the preliminary sign. As the disorder progresses, common features like walking , ingesting and writing come to be increasingly hard [2].

It is a persistent syndrome. A modern ailment of motor function and clinically characterised by way of tremors that are most evident on examination and worsened through emotional stress; different aspects are stiffness and gait and posture [15]. Age , gender, dietary habits, infection, heavy metals and environmental toxins such as properly water are some of the environmental factors that promote the prevalence of PD[16]. Other motives of Parkinson's are trauma, toxic agents , atherosclerosis, neoplasms and drugs like anti-emetics[15,16]. PD is common in men as compare to girls in most population [5]. The discovery of an autosomal dominant familial shape of Parkinson's ailment due to a mutation in the Alpha synuclein gene has sparked pastime in a genetic phenomenon as a element explaining the progression of Parkinson's disorder [9].

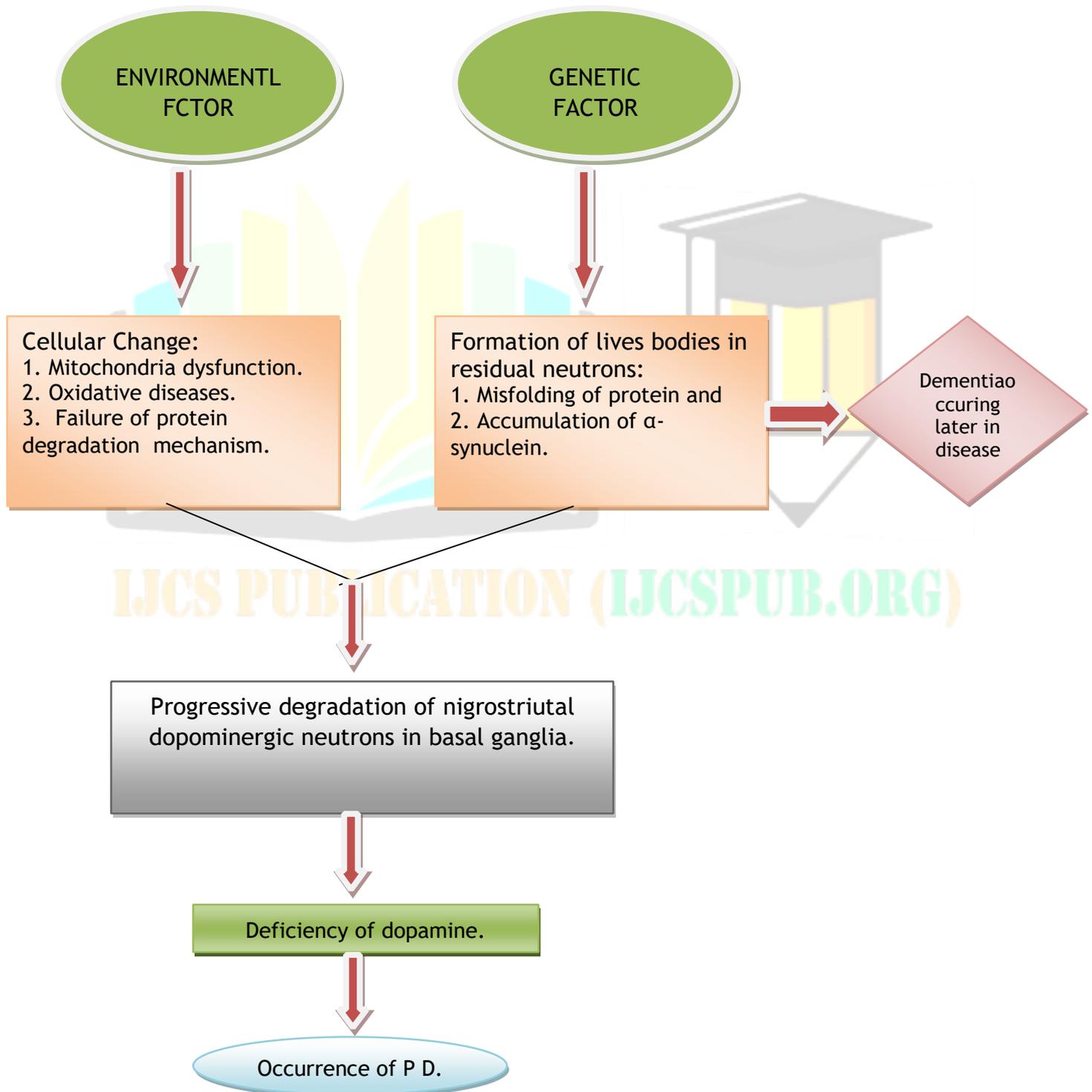
## CAUSES OR RISK FACTORS:

- Research research have associated speculation concerning the onset of PD to environmental and genetic elements [7].
- Recognised environmental situations that incline to the improvement of PD has demonstrated elusive [6]. -Ecological conclusive positively linked with PD include elements such as head injury, disquite, dejection, consumption of milk byproducts , sedentary lifestyle, rural life, smoking, consumption of alcohol and coffee and serum uric acid attention are stated as having an negative correlation [7]. -The mitochondrial dysfunction in PD is also possible by way of avtivatef one or extra environmental toxins[6].
- Due to the many challenges and immanent limitations,is now not stunning that such epidemiology research from time to time yeild contradictory outcomes [8].

## PATHOPHYSIOLOGY:



The parkinsons disorder takes location due to the de- ficiency of the dopamine the parkinsons ailment con- sists of the degeneration of the nigrostriatal pathway hence reduces the neurotransmitter dopaminein the parkinsons sickness sufferers there is accelerated of the cytoplasmic dopamine tiers in nigral neurons and hence penalties in dopamine oxidation when there is the technological know-how of reactive oxygen species that can destroy the neurons ot kill the neurons



## TREATMENT:

There are different kinds of the treatment on parkinson's disease some of them are as follows:

1) AYURVEDIC TREATMENT: An ayurvedic treatment on parkinson's disease is given by using different herbal plants on of them are Ashwagandha.

**a)** *Withania Somnifera (L) Dunal* is also known as 'Indian winter cherry' or 'Indian Ginseng' in India and 'Ashwaghanda' in sanskrit [10][11].

**b)** The formulations prepared from Ashwaghanda mostly used in the Ayurvefic medicine[11].

**c)** It is mostly available as a churna, a very fine sieved powder which is mixed with the ghee, honey or water [10].

-Classification of Ashwagandha:

-Kingdom: Plantae.

-Subkingdom:Tracheobionta.

-Superdivsion : Spermatophytia.

-Division:Magnoliophytia.

-Class:Magnoliopsida. -Sub class:

Asteridae.

-Order:Solanales.

-Family:Solanaceae.

-Genus: Withania.

-Species: Somnifera Dunal.

-Botanical information: It is a short , shrub belongs from the family solanaceae which is 2 feet approximately in height[13].

-The name somnifera actual means that sleep inducing[13].

-It given as a ayurvedic treatment since 3000 of years ago[14].



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## 2).MEDICAL TREATMENT:

The medical remedy involves in the three ways that is ; a).Non pharmacological Approach

b).Pharmacological Approach and

c).Surgical Approach

- Non pharmacological method involves the physical remedy such as partial weight assist treadmill gait education (PWSTT) . It also involves the wireless vibratory remarks device in pursuits lifestyles which helps to enhance each day things to do and also preserve the gait.

- Pharmacological strategy involves the specific sorts of capsules which acts on the special structures such as dopaminergic machine and cholinergic machine .

- Surgical method entails the one of a kind sorts of therapies. The three most important aims of unfavourable and stimulation therapies includes:

1).Thalamotomy

2).Pallidotomy

3).Sub-Thalamic Nucleus .

## 3). YOGIC PRACTICES:

The yogic exercise also really useful to parkinson's sickness but these be performed only u fer the guidance by the yoga therapist.

## 4).COUNSELING:

This involves that tu information the sufferers that they get more electricity to recure such as :

1).Be lively

2). Exercise regularly

3).Take top weight loss plan which includes fibers , antioxidant and vitamins.

## CONCLUSION:

parkinsons disease is one of the most common neurodegenerative diseases affecting the aged populace and is related with extended morbidity and mortality. L-dopa is the most everyday form of therapy for pd as it is used as a dopamine replacement for this neurodegenerative disease. pd is a frequent neurodegenerative disease. pd is a revolutionary ailment that eventually leads to severe incapacity due to treatment-resistant motor problems and increasing severity of non-motor signs and symptoms. A large quantity of dealers are now handy consisting of surgical interventions to treat early and late complications of pd. Diagnosis is medical and there ought to be an excessive index of suspicion to rule out different motives of parkinsonism. Awareness of sickness manifestations, therapy, and revolutionary long-term path of the disease is indispensable for top management of instances.

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