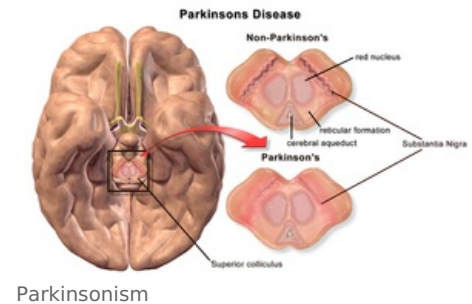


Parkinson's syndrome

Parkinson's syndrome or **hypokinetic-rigid** or **hypokinetic-hypertonic syndrome** is one of the extrapyramidal syndromes and occurs when there is a nigrostriatal dopamine deficiency, when dopamine receptors are blocked or when the putamen is damaged.

There is damage to the substantia nigra (pars compacta) and a decrease in dopamine production. This causes a decrease in nigral neurons and a decrease in dopamine supply to the striatum. (nigrostriatal dopamine deficit)



Etiology

- **Primary** - Parkinson's disease and other neurodegenerative diseases;
- **Secondary** - drug, vascular, toxic, in metabolic diseases (Wilson's disease), endocrinopathy (Fahr's disease - hyperparathyroidism), post-traumatic (boxers), in normotensive hydrocephalus.

Clinical picture

- **Hypokinesia** = reduction in range and amplitude of movements;
- **bradykinesia** = slowed movement;
- **akinesia** = difficulty starting movements;
- **hypomimia to amimia** = mask-like facial expression;
- **micrographia** = shrinking of the font along the line;
- **walking** = short steps, movements of the upper limbs are missing, hesitation, instability often appear;
- **speech** = slow and monotonous, hushed;
- **rigidity** = increased muscle tone in both the agonist and antagonist regions, more in the flexor muscle groups, which leads to a flexed posture of the body and limbs;
- **pulse** = inability to maintain balance smoothly - the patient compensates for the deviated center of gravity by accelerating short steps forward or backward (propulsion, retropulse) until he catches a solid object or falls;
- **tremor** = mainly resting, static.



Sketch of the position of the patient

Drug-induced parkinsonism

Drug-induced parkinsonism is caused by blocking dopamine receptors in the striatum. Most often caused by **typical neuroleptics**. It can be caused by atypical antipsychotics (haloperidol), antihistamines, antiemetics (thiethylperazine, promethazine), prokinetics (metoclopramide), antihypertensives (reserpine, alpha-methyldopa).^[1]

Treatment

- **Levodopa** (L-3,4-dihydroxyphenylalanine).



For more information see Antiparkinson's.

Links

Related articles

- Extrapyramidal syndrome
- Hyperkinetic extrapyramidal syndrome
- Hypo- a hyperkinetic movement disorders/PGS
- Surgical treatment of Parkinson's disease

External links

- Extrapyramidal movement disorders (<http://mefanet.lfp.cuni.cz/clanky.php?aid=301%7C>)
- Parkinson's disease (<https://www.youtube.com/watch?v=VIEUEV9wlyI&feature=youtu.be>) - video on youtube.com

Reference

1. NEVŠÍMALOVÁ, Soňa – RŮŽIČKA, Evžen – TICHÝ, Jiří. *Neurology*. 1. edition. Galén, 2005. pp. 195-201. ISBN 80-7262-160-2.