Multiple System Atrophy

Multiple system atrophy (MSA) is a progressive neurodegenerative disease which affected many different parts of brain. Because the MSA diagnosis is very difficult, it was thought in past that there are three different diseases - Shy-Drager syndrome, striatonigral degeneration and olivopontocerebellar atrophy. Nowadays we know that all of them are just syndromes, which occur in people with MSA.

An incidence of MSA is pretty low, just about 5 in 100,000 cases. However this number is not valid enough. The reason is that MSA is very often **badly diagnosticate**, it is confused with e.g.: *Parkinson disease* (tremor), *stroke* (movement problems which can look like hemiplegia), *cerebellar atrophy* (instability).

MSA **can look like Parkinson disease** and it is very important to distinguish them. Parkinson disease reacts on L-DOPA treatment (althought sometimes we have to use a huge dose), so patients usually get better after their medication. Not in the case of MSA. Parkinson disease is 36 times commoner than MSA and we can say that the patients with PD have a better prognosis. MSA is a fatal disease.

Etiology

We still do not know much about the origin of MSA, although it is obvious that main process is a degeneration of neurons in a brain. But why is this happening? There is no evidence that it is a hereditary disease and an influence of environment is also unknown.

Symptoms

The disease usually occur typically at **the age of 50** or later (but we know alson earlier onset). Annoying is that it is getting worse very quickly over time, but we do not know the exactly speed of a progression. It is very individual and we can not influence it.

Basal Ganglia Symptoms

- parkinsonism (akinesia)
- irregular distal tremor
- myoclonus (sometimes)

Cerebellum Symptoms

- instability
- problems with co-ordination
- problemic handwriting

Brain Stem Symptoms (autonomic problems)

- bladder dysfunction (urgency, retention,...)
- erectile dysfunction (in man)
- orthostatic hypotension
- dysphonia
- swallowing problems

Therapy

We have **no specific treatment** for MSA, so we can treat just individual symptoms. *Levodopa* is sometimes usefull for movement problems, althought it has limited results (in contrast with Parkinson disease, which is highly influenced by L-DOPA treatment). Another possibility is a *speech therapy* or *blood pressure medications* (clumsy people can have problems with falls).

MSA is incurable. Patients gradually lose the ability to move, step by step, and at the end it leads to death.

Links

Related articles

- Neurodegeneration
- Parkinson disease
- Parkinsonism
- Dysphonia
- Basal ganglia
- Brain stem
- Cerebellum
- Tremor
- Myoclonus
- Akinesia
- Levodopa
- Hemiplegia
- Orthostatic hypotension

External links

- MSA Trust (http://www.msatrust.org.uk)
- Rare diseases (http://rarediseases.about.com/od/rarediseases1/a/msa05.htm)

Bibliography

- JEDLIČKA, KELLER,, et al. *Speciální neurologie.* 1st edition. 2005. ISBN 80-7262-312-5.