Parkinson's disease is now also called Parkinson's disease

The new German Parkinson's guidelines are finally here - and at 570 pages, they're a real tome. We've taken a look at them and summarized the most important innovations in diagnosis and treatment for you.

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The long overdue new version of the German Parkinson's S2k guideline was coordinated by the German Society of Neurology (DGN). Nineteen specialist societies, professional associations and organizations were involved, including the German Nursing Council and umbrella organizations for occupational therapy, speech therapy and physiotherapy. The result is a novel: the guideline now comprises 570 pages. Even if you don't count the bibliography and intro, it still comes to over 500 pages.

The second thing that immediately catches the eye in addition to the length of the guideline is its title: "Parkinson's disease". This is a term that was already used colloquially, but did not exist officially. According to the authors of the guidelines, it should now be used in general. This means that "idiopathic Parkinson's syndrome" (IPS) is now medical history. The reason for this is that many supposedly idiopathic Parkinson's diseases - for example the hereditary forms - are not really idiopathic.

The most important facts about the diagnosis

Content: What's new? Quite a lot. It is now clearly recommended to use the international MDS diagnostic criteria for the diagnosis of Parkinson's disease. In Germany, the UK Brain Bank criteria are still frequently used, but they are outdated. According to the guideline, the MDS criteria are both more sensitive and more specific. Regular re-evaluation of the diagnosis is also clearly recommended, not only in the first few years, but also in the long-term course. Motor fluctuations and dyskinesia in particular significantly increase the reliability of the diagnosis.

In a suspected prodromal phase, it is recommended that the use of defined prodromal criteria be considered in order to substantiate the suspected diagnosis. These include olfactory testing and polysomnography with regard to a REM sleep behavior disorder. If one or both of these are present, the diagnosis of Parkinson's disease becomes much more likely. However, negative findings do not rule out Parkinson's disease. In terms of imaging, cranial MRI is the method of choice; cranial CT is not indicated. The MRI examination should be performed at an early stage, not so much to confirm the diagnosis as to rule out differential diagnoses. The measurement of the biomarker neurofilament (NFL) is not part of routine diagnostics and is reserved for specific questions.

As far as genetic diagnostics are concerned, the guideline is cautious. For the rather rare, early Parkinson's diseases before the age of 50, the guideline recommends testing the PRKN, PINK1, DJ1, LRRK2, SNCA and VPS35 genes, but only at the patient's request. After the age of 50, testing should be carried out if the patient so wishes and at least two first-degree relatives or one first-degree and one second-degree relative are affected. In this case, the LRRK2, SNCA and VPS35 genes are of primary importance. Polygenetic risks should not be routinely recorded. Genetic diagnostics are primarily relevant for communicating with relatives. The result does not yet have any therapeutic consequences.

Some highlights on therapy

The recommendations for therapy are extremely extensive and can only be outlined here. Initial monotherapy is recommended with 100 % consensus. It is pointed out that motor fluctuations and dyskinesia occur earlier with initial L-dopa therapy than with initial therapy with MAO-B inhibitors or dopamine agonists. The latter should therefore be preferred, especially in biologically younger patients. However, the ergoline dopamine agonists bromocriptine, cabergoline and pergolide are definitely out and should no longer be used. Very severe symptoms and multimorbidity speak in favor of L-dopa in primary therapy. L-dopa is also advantageous if a particularly rapid therapeutic effect is required.

Combination therapies come into play when monotherapy is no longer sufficient. The dopamine agonist should not be used to the limit. If the effect on dopa-sensitive symptoms is insufficient at a medium maintenance dose, combined therapy should be started. As the disease progresses, therapy is increasingly determined by specific therapeutic situations that need to be addressed individually. In addition to motor challenges such as fluctuations, dyskinesia and tremor, the guideline also addresses typical concomitant problems such as orthostatic hypotension, constipation, sleep disorders, bladder dysfunction and pain, as well as affective and cognitive disorders.

In the case of fluctuations, fractionation of L-dopa administration can help, alternatively and depending on the initial therapy, the additional administration of L-dopa with modified galenics, dopamine agonists, MAO-B inhibitors or COMT inhibitors. For L-dopa-associated dyskinesia, amantadine is recommended as a should and safinamide as a can. Deep brain stimulation of the subthalamic nucleus (STN-THS) receives a should recommendation with high consensus in those patients in whom fluctuations with and without dyskinesia cannot be adequately treated with medication.

Using ultrasound to treat severe tremor

In the case of tremor, the guideline primarily recommends increasing the dose of drug therapy, whereby the tremor problems and the increased risk of motor complications must be weighed up. There are clear words on anticholinergics: they should only be considered in Parkinson's disease "in absolutely exceptional cases" for tremor that cannot be treated in any other way. STN-THS, on the other hand, is also clearly recommended for tremor that cannot be treated. Bilateral stimulation is recommended here.

A new method of tremor control is MRI-guided focused ultrasound, or MRgFUS for short. This uses bundled, high-intensity ultrasound waves to ablate or "lesion" different core areas. In the case of tremor, this is the lower thalamic border. Ultrasound ablation in this area - an intervention that takes three to four hours - interrupts oscillating neuronal tremor networks and can reduce tremor by around 80 %. The main advantage of MRgFUS compared to DBS is that no surgery is required. Bleeding, infections or even implant malfunctions and battery changes are not an issue. With DBS, on the other hand, it is easier to react to individual changes.

The new S2k guideline is still cautious about MRgFUS and other ablative procedures. Although MRgFUS has been approved in Europe, the procedure should currently only be used in studies or registries. So far, there is mainly prospective open-label data, which was

published at the beginning of 2023 and covers a period of up to three years. Radiosurgical procedures and radiofrequency ablation are not recommended.

And what about driving?

The recommendations on fitness to drive with Parkinson's disease have also been updated. Group 2 motor vehicles should generally not be driven. In the case of Group 1 motor vehicles - i.e. private cars, motorcycles and agricultural machinery - a driving license may be granted after individual consideration. Driving fitness tests should not only test motor function, but also neuropsychological function. No driving license should be issued in the first three months after THS.