CORRESPONDENCE

Treatment of idiopathic Parkinson's syndrome

by Dr. med. Lars Wojtecki, Dr. med. Martin Südmeyer,
Prof. Dr. med. Alfons Schnitzler, in volume 37/2007

Is the Risk of Parkinson's Syndrome Reducible?

The neurodegenerative condition Parkinson's disease affects every 50th European citizen over 65 years of age. Preventive strategies are thus well worth considering.

200 years after the disease was first described we still know little about the precipitating factors, except for a few special forms of the disease. There is no causal curative therapy. The neurological sequelae of degenerated dopaminergic neurons can be decreased with medications, but these unfortunately are often associated with undesirable effects.

One third of patients with Parkinson's disease suffer from depression, another third develop cognitive problems even progressing to dementia. Interdisciplinary preventive research is therefore required. Aren't half of these cases idiopathic conditions – at least in women?

Hormone therapy in women from the menopause onwards, when instituted timely, is known to be associated with an approximately 50% reduction in the risk of Parkinson's disease (1). This is indirectly confirmed by a new article from the Mayo Clinic in Rochester published in a prominent neurological journal (2): women who underwent unilateral (n = 1252) or bilateral (n = 1075) ovariectomy (without malignancy) before the menopause were studied. After a mean follow-up of 25 to 30 years, this population postoperatively developed parkinsonism (RR 1.68) more often than a same-age control group (n = 2368). A linear trend was observed: the younger the women were at ovariectomy and thus with preponed menopause, the greater was the risk of Parkinson's disease, and this risk was significant for subjects ovariectomized at age 42 years and younger. Bilateral ovariectomy before age 45 years was associated not only with higher overall mortality, but also with an increased incidence of neurological and psychiatric diseases. A little known monograph exists on this topic (3).

Conclusion: longer-term estrogen deficiency – in this case iatrogenically induced prematurely on a "semi-experimental" basis – deprives the patient of neuroprotection with the consequence of an increased risk of Parkinson's disease. DOI: 10.3238/arztebl.2008.0054a

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In Reply:

Professor Wenderlein addresses the important and interesting subject of neuroprotective and preventive measures for intervention in the pathophysiological processes of Parkinson's disease. To the present day there is still no curative and no conclusively proven neuroprotective therapy, although in the latter area numerous substances have been repeatedly discussed.

As regards the interesting studies referenced for the influence of postmenopausal estrogen therapy and iatrogenic menopause on the risk of Parkinson's disease, the following aspects are also worth mentioning:

The study of Currie et al. suggests that the risk of developing Parkinson's disease can be reduced by the postmenopausal estrogen therapy. However, this seems only to hold true for the natural menopause. Research conducted by Popat et al., on the other hand, showed that hormone therapy in post-hysterectomy patients with or without ovariectomy is even linked to an increased risk of Parkinson's disease. Ovariectomy itself, however, appears to be associated with an increased risk of Parkinson's disease, as evidenced by the study of Rocca et al. quoted by Professor Wenderlein. The cited study, however, is unable to answer the question whether estrogens do in fact exert a neuroprotective effect on dopaminergic nigrostriatal neurons in vivo in Parkinson patients.

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Conflict of interest statement

The authors of both articles declare that no conflict of interest exists according to the guidelines of the International Committee of Medical Journal Editors.