dosage. Moreover, neurological and psychiatric complications become more frequent. Dopaminergic agonists, like lisuride, are especially effective in this decompensated phase. Lisuride has the advantage that it can be given orally as well as intravenously. Parenteral application of lisuride in 10 patients did not show remarkable side effects. Both oral (8 patients) and parenteral treatment has effects especially on akinesia. Side effects after oral treatment were in the range reported for other dopaminergic agonists. Biochemical parameters, like serum prolactin and growth hormone levels and urinary metabolites (VMA, HVA, DOPAC and 5-HIAA) have been measured during lisuride therapy. An attempt has been made to correlate these data with clinical observations.

1132. Withdrawn.

1133. Combined therapy with L-Dopa (with or without decarboxylase inhibitor) and L-Deprenyl in Parkinson's disease: L-Dopa limiting study

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The study is undertaken (1) to elucidate the efficacy of combined L-Dopa and L-Deprenyl (MAO-B inhibitor) treatment of the clinical signs and symptoms in parkinsonians on a stabilized L-Dopa therapy and of the on-off-phenomena, and (2) to titrate the possible dose reduction of L-Dopa. The study is a double-blind placebo controlled trial, which includes 40 patients of both sexes with at least 3 years history of Parkinson's disease, randomized into L-Deprenyl and placebo groups. The trial comprises two 4-week periods, in which the L-Deprenyl dosage is 5 mg daily in the first one, and 5 mg twice daily in the second. The L-Dopa dosage is being reduced until demonstrable impairment. The therapeutic effect is evaluated by the Webster Rating Scale and recording of the on-off phenomena every week and by a global clinical evaluation at the end of the trial. The therapeutic efficacy and the side effects will be discussed with regard to the clinical usefulness of L-Deprenyl.

1134. L-Dopa long-term syndrome and Deprenyl

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23 parkinsonians suffering from the 'long-term syndrome' under chronic therapy with L-Dopa/benserazide were treated with the association of Deprenyl, inhibitor of MAO-B. Most of the patients have received the maximal dose of 15 mg/day during 5 months. Clinical, permanent observations during 12 hr at each control in all patients were carried out. Fluctuations were evaluated according to the Webster Scale, dyskinesias and dystonias were quantified in intensity, duration and frequency. Controls were done at the beginning, and at 15 days, 1, 2 and 5 months of the assay and finally after 3 weeks of the withdrawal of Deprenyl. Deprenyl appeared to be able to decrease the fluctuations, potentiating and prolonging the anti-parkinsonian effect, especially akinesia. Dyskinesias and dystonias were enhanced by the association; in one case important dystonias have appeared. We have tried to find the best quantitative association for each patient. The reduction in the dose of L-Dopa/benserazide leads to a successful result in some patients with improvement of parkinsonism and decreasing dyskinesias. Tolerance was good; the most frequent side effects were insomnia, gastric pain and dry mouth. Only 1 patient was out of the assay because of transient psychiatric reaction.

1135. New experiences with MIF (PLG) in Parkinson's disease

F. GERSTENBRAND, W. POEWE and G. RANSMAYR, *Innsbruck, Austria*

In previous clinical studies the beneficial effects of intravenous treatment with melanocyte-inhibiting-factor (MIF-I) alone and in combination with L-Dopa on Parkinson's syndrome could be observed. In another clinical trial 10 parkinson patients on a stable L-Dopa basic substitution therapy for at least 3 months received additional daily i.v. injections of 200–400 MG PLG of saline in a double-blind crossover fashion for 2 weeks. The results will be discussed with regard to a postulated Dopa potentiating effect of PLG.

1136. 10-yr treatment of Parkinson's disease with levodopa and carbidopa/levodopa: Multi-clinic studies in Japan

H. KOWA, M. KASE, J. ATARASHI, K. ANDO, K. ITO and T. OHMOTO, *Kanagawa, Japan*

Long-term therapy of 239 Parkinson's disease patients was carried out using levodopa and

ABSTRACTS
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