do not persist for more than three weeks. Likewise, there was no evidence of haemosiderin deposition in the stalk which might be expected after haemorrhage. Stalk enlargement could have been an effect of untreated diabetes insipidus, in which the first case might have expected resolution of the abnormality with treatment. However, the swelling persisted for three months despite adequate treatment of the diabetes insipidus. It is possible that unrecognised injury or infection with ensuing inflammation resulted in the swelling observed initially. It is known that insults to the stalk can lead to reorganisation and proximal enlargement. We may have observed the resolution of such changes.

We conclude that pituitary stalk enlargement may occur in idiopathic cranial diabetes insipidus, persist for months, and eventually disappear. Serial imaging with CT or MRI will exclude progressive infiltrative or neoplastic causes.

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Ropinirole (SK and F 101468) in the treatment of Parkinson's disease

Ropinirole (4-[2-(3-dipropylaminio)ethyl]-1,3-dihydroxy-2H-indol-3-one), a selective dopamine D2 agonist has been shown to have anti-Parkinsonian effects at doses between 0.6 mg twice a day and 2 mg twice a day in an open incomplete patient study. We report the results of a further outpatient open study in fourteen patients with idiopathic Parkinson's disease.

Participating in the study were seven patients with presumed Parkinson's disease (mean age 56.5 years, disease duration 2.5 years and mean Hoehn and Yahr Stage II) and seven patients with disabling levodopa-induced on-off oscillations (median age 66 years, disease duration 10.0 years and duration of levodopa treatment 4.0 years), daily levodopa dose 750 mg, median duration of disabling oscillations 1.0 years, mean Hoehn and Yahr stage when "off" III and when "on" II. Four of the patients treated with levodopa had severe interdose chorea and one patient had biphasic dyskinesias. Three patients were also receiving anticholinergic medication, three were taking L-deprenyl (selegiline); none of the patients had a history of psychiatric disorder or evidence of hepatic, renal or cardiovascular dysfunction.

Both groups were initially treated with 0.6 mg of ropinirole twice daily for one week. The dose was increased to 1 mg twice daily for the second week and by further weekly increments of 1 mg twice daily to a maximum of 7 mg twice daily over an eight week period. If adverse reactions developed, patients continued on the previously tolerated dose for another week. The period of less than mg twice a day was made; if gastrointestinal side-effects or symptomatic orthostatic hypotension re-occurred, despite modification of ropinirole dosing, domperidone 20 mg twice daily was added to the remaining trial period. If interdose dyskinesias increased in the oscillating patients levodopa was concomitantly reduced. After each dose in the Valsalva's 39 seconds of standing pulse and blood pressure were made at baseline and then hourly for the following four hours.

Motor assessments were carried out on the day of dose increase before and two hours after dosing, using the Modified Webster scale and tapping and walking tests. Assessments of motor fluctuations were carried out using self-scoring diaries to record a percentage daily "on" time and severity of dyskinesias.

Of the previously untreated patients two showed improvement comparable with that seen with oral levodopa at doses of 12 mg and 6 mg a day respectively. The first patient had a Webster score which reduced from 14 to 10, a 44% increase in the number of finger taps and a 40% decrease in walking time. The second patient had a 41% decrease in numbers of finger taps, but could not increase the dose further because of nausea despite domperidone. Two of the de novo patients dropped out before the treatment period was finished, one because of operations of lying and standing intolerance and severe hallucinations.

Four of the seven patients with levodopa-induced on-off oscillations showed a worthwhile clinical response with a reduction of mean "off" hours per day from 3.9 (1.9-6.5) to 1.9 (0.4-3.8) hours. If the dose needed to obtain an optimal response was 5.8 mg per day (3.2-8 mg), but beneficial effects began at 2.3 mg daily (1.2-4.0). The duration and intensity of interdose dyskinesias increased in three patients, but diminished to even below baseline level by a mean reduction of 15% of the total daily levodopa dose in two patients. Two patients treated with up to 10 mg a day in addition to oral levodopa did not have a good response. One patient who experienced prolonged episodes of disabling biphasic dyskinesias. One patient developed intolerable drowsiness and somnolence at 2 mg a day and discontinued the study and two had nausea and symptomatic orthostatic hypotension controlled by domperidone. Laboratory test results remained normal throughout the eight week period.

We conclude that ropinirole has anti-Parkinsonian effect and that the optimum dose range for most patients may be 4-8 mg a day. Adverse reactions were confined to those Adverse reactions were confined to those Adverse reactions were confined to those who were treated with ropinirole was limited to those patients with other dopamine receptor agonists and can be reduced by the use of domperidone and possibly more gradual dose increments than occurred in this trial. We would recommend in future that oral levodopa and subcutaneous apomorphine tests are carried out on previously untreated patients with Parkinson's disease for the assessment of a new dopaminergic agonist, to exclude as far as possible patients with multi-system degeneration unresponsive to this group of drugs. BIRGIT KLEIDORFER GM STEERN JLI EEE Department of Neurology, Middlesex and University College Hospitals School of Medicine, London W1N 8AA, UK J M ROTHFISLM N SREE-HARAN Clinical Investigation Unit, SmithKline Beecham Pharmaceuticals Welwyn, Hertfordshire AL6 9AR, UK


Cardiovascular autonomic function tests—three Valsalva and six deep breaths necessary or will singles do?

In the assessment of autonomic neuropathy, two widely used tests of cardiovascular autonomic function assessing the heart rate response to three consecutive Valsalva manoeuvres and to six consecutive deep breaths. We aimed to see whether the response to a single Valsalva manoeuvre was significantly different from that from the average of three and whether the response to a single deep breath was significantly different from that from the average of six deep breaths.

The study was done in diabetic patients, 25 male and 11 female, 15 insulin treated, mean age 54 years (range 30-82), mean duration of diabetes 17.4 years (range 3 months-51 years). All had symptoms which may have been due to diabetic neuropathy.

They underwent heart rate monitoring using a computer-assisted system for the collection and analysis of heart rate data for cardiovascular autonomic function tests (RR Medical Electronics, Leeds, UK). A Valsalva manoeuvre was performed by the patient blowing into the tube of a sphygmomanometer and sustaining a pressure of 40 mm Hg for 15 seconds while the R-R interval was recorded, the result being expressed as the Valsalva ratio: the longest R-R interval during the 45 seconds after the manoeuvre divided by the shortest R-R interval during the manoeuvre. All the patients performed the manoeuvre properly and, as far as could be ascertained, achieved an intrathoracic pressure which was adequately raised. Heart rate variability during deep breaths was calculated by the patient resting quietly and breathing deeply in for over five seconds and...