



# RESEARCH UPDATES



## RASAGILINE REDUCES "OFF" TIME

Rasagiline, due to be approved by the FDA the latter part of this year, is 3 to 15 times more potent than selegiline for the inhibition of MAO-B in Parkinson's. Rasagiline may also offer the advantage of a well tolerated, once-daily therapy that can reduce "off" time and increase motor function without the amphetamine qualities of selegiline.

Those who participated in the study and added entacapone (Comtan) to rasagiline found they were able to make significant reductions in their levodopa dose, There is the additional possibility that rasagiline may also be beneficial in slowing down the progression of Parkinson's.

## ROTIGOTINE - A TRANSDERMAL PATCH

A transdermal patch containing rotigotine, a medication similar to the oral dopamine agonists, Mirapex and Requip, should also be available soon. The patch should make it easier to manage your medication and control symptoms. Getting the drug in a continuous manner should be helpful since continually varying drug levels are thought to cause more motor complications.

## PERGOLIDE WARNING

Researchers in Belgium found that two people out of a 10 patient study who were taking high doses (greater than 5 mg daily) of pergolide (Permax®), a dopamine-receptor agonist that mimics the effects of dopamine to help regulate movement, had severe heart failure and problems with their heart valves.

The study was so small that the researchers did not suggest stopping the use of the drug because it still remains a good method of treatment. Since restrictive valvular heart disease and pulmonary hypertension may be side effects, be sure you are checked for that possibility.

# PARKINSON'S-ALZHEIMER'S LINK

Scientists continue to study the link between Alzheimer's and Parkinson's disease. Both have commonly shared traits. Both Alzheimer's and Parkinson's are diseases of aging that involve clumps of protein forming in the brain. In both diseases, brain cells die and oxidative stress also seems to play a role.

A new study suggests they may now share a common gene. In studying a genetic analysis of about 400 families with siblings who had Parkinson's, scientists found evidence that a gene on chromosome 10 may play a role in both brain disorders.

## RESEARCH on GDNF

When medication was no longer effective in controlling their symptoms, five people with Parkinson's had an operation to implant a pump that delivered an experimental treatment called glial cell-line derived neurotrophic factor, or GDNF to their brain. On the average, they had had Parkinson's disease for 19 years and were 54 years old.

Both a rating scale (the Unified Parkinson Disease Rating Scale) and an imaging study (fluorodopa PET scanning) showed all five had positive results from the two year study. The UPDRS scores improved by 40%, whereas normally they would have gotten worse. The density of dopamine transporters seen with the PET scan increased by 60% which led the investigators to think the dopamine cells may have sprouted new nerve endings, a sign of restored health.

The researchers suggested that both of these findings could have been for other reasons, which prompted a larger randomized, double-blind, placebo-controlled study with 350 people where all 350 had the operation to implant the drug-delivery pump, but only half are receiving GDNF. Results are expected to be announced in the fall of 2004.

If the forthcoming results are positive, before GDNF can be approved, it will still need to be shown to be effective and safe for long-term use. More data in more patients will be needed before all of the remaining questions can be answered, and even then, GDNF will not be available for at least several years because of the lengthy approval process. Both the drug and the delivery device need to be separately approved by the Food and Drug Administration; the use of GDNF has not been approved for any condition, and the device has not been approved for delivery directly into the brain.