DEMENTIA NEWSLETTER *for* PHYSICIANS

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REMINYL — The Newest Cholinesterase Inhibitor (CI)

By Dr. W.B. Dalziel, Chief, Regional Geriatric Assessment Program

A third CI: Reminyl (Galantamine) produced by Janssen Ortho Inc. has been added to Aricept (donepezil) and Exelon (rivastigmine). For you history buffs, in some ways this is a very old drug. Reference was made in the *Odyssey* by Homer in 750 BC to the incident when Circe poisoned Odysseus' crew with Atropine causing amnesia and a delusional state. He saved his crew with an antidote called "Moly" (from the plant galanthus nivalus). Galantamine was originally derived from the bulbs of daffodils and snowdrops related to the original "Moly".

In general, all three CIs have comparable efficacy. The overall mean response is a delay in progression of cognitive dysfunction by approximately one year. This is certainly felt to be a significant clinical benefit to the families and sufferers of Alzheimer's disease (AD).

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Education Sessions Available

If you're involved in a 'learning group' of family physicians with regular meetings, we would be pleased to work with you to develop a needs tailored education session on dementia. Contact: Marg Eisner at 523-4004 or patao@cyberus.ca

If you would like to receive this Newsletter electronically, send your email address to patao@cyberus.ca

REMINYL

(continued from page 1)

However, the reason that I would strongly recommend that all patients with a diagnosis of AD receive a trial of a CI is that approximately 25% of patients will have a strong clinical response with obvious improvement in cognitive function. (I have seen MMSE scores improve by 6 - 8 points). To date, there is no way to predict these "strong responders".

A New Program

First Steps Learning Series

For those newly-diagnosed with Alzheimer Disease or a related dementia and willing to participate.

Referrals can be made directly to the Alzheimer Society at 523-4004. Ask for Monique Thibault or Susan Kemp.

Results from the published AD studies using Galantamine include the following (all statistically significant):

- Improvement in cognitive function with maintenance at baseline over 12 months
- Maintenance of function (ADLs) over five months
- Delay in the emergence of behavioral symptoms over five months
- Improvement in global function at five months
- Decrease in direct caregiver burden at six months

To me, the decrease in daily time spent by caregivers providing direct assistance with ADLs is very meaningful. The daily time spent decreased by 40 minutes in the Galantamine group and increased by 20 minutes in the placebo group for a total difference of one hour per day. Think of the impact on caregivers: 365 less hours of caregiving per year or the equivalent of 9 extra weeks holiday. Research shows that approximately 45% of primary caregivers have sleep problems and 75% develop major depression. This is not surprising considering that the average caregiver for someone with moderate AD spends 69 - 100 hours per week in providing care.

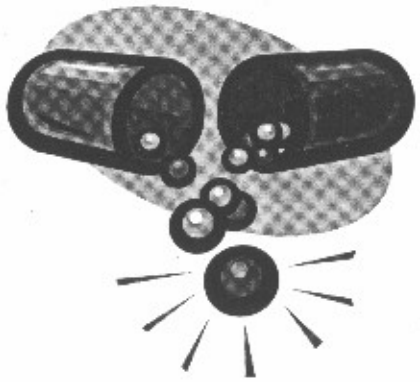
Although currently the only approved indication for CIs is AD there have been studies showing benefits in other types of dementia for example, Rivastigmine for Lewy Body Dementia and Galantamine for mixed AD/vascular dementia. Fronto-temporal dementia does not have a cholinergic deficit and therefore does not respond to CIs. There is however a serotoninergic deficit and therefore some experts are using SSRIs.

So how is Galantamine different? As with all three CIs there is a titration schedule. Galantamine is started at a dose of 4 mgms, in-

creased in a month to 8 mgms BID, and can be pushed to 12 mgms BID one month later.

There is a dual mechanism of action, not only the inhibition of acetylcholinesterase but also allosteric modulation of nicotinic receptors which results in an increase in the release of acetylchloline but also serotonin, GABA, and glutamate. Research has shown that blocking nicotinic receptors impairs cognition and stimulating nicotinic receptors improves memory.

Galantamine has the same absolute and relative contraindications as the other CIs and essentially the same side-effect profile with two exceptions. Both Galantamine and Donepezil seem to have less GI side effects than Rivastigmine. This is an important factor in patient compliance. Donepezil has been associated with nighttime sleep disturbance and nightmares and therefore the dose recommendation has



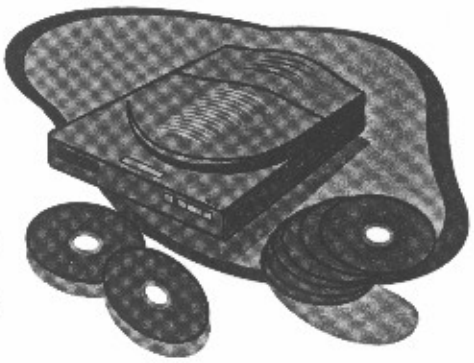
been switched from QHS to QAM. Galantamine is not associated with nightmares and in a study using the Pittsburgh Sleep Quality Index was shown to have no disruption on sleep.

The study showing delay in the emergence of behavioral disturbance is also important, as behavioral problems are a major contributor to caregiver distress and the decision for institutional placement.

Galantamine is a useful addition to the treatment armamentarium for AD and I would encourage you to gain experience with this drug. The current estimates in terms of incidence of dementia is that 2% of those over 65 will develop a dementing illness each year. This would mean approximately 1800 - 2000 new cases of dementia in Ottawa each year. Early diagnosis and appropriate treatment is extremely important for dementia not only in terms of individual patient care but also in terms of overall health system costs. By 2031, over 750,000 Canadians will suffer from Alzheimer's Disease or a related dementia. If the Canadian costs for dementia are prorated from the figure of $3.9 billion in 1991, estimates are that the current costs for dementia care are approximately $5.4 billion (approximately 6% of the overall Canadian healthcare budget). Pharmacoeconomic studies of CIs suggest that these drugs are cost neutral or in fact slightly cost saving.

Remember that education is critical for caregivers dealing with an AD patient and that all caregivers should be referred to the Alzheimer Society once a diagnosis of AD or a related dementia is made. ■

A Great CD-ROM on Alzheimer Disease



By Dr. Barbara Collins
Psychologist,
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The Ottawa Hospital,
Civic Campus

I recently came across a wonderful educational CD entitled, "The Clinical Diagnosis of Alzheimer Disease: An Interactive Guide for the Family Physician". The CD was developed by the Alzheimer Disease Program at Riverview Hospital in British Columbia with support from Novartis and the Alzheimer Society of British Columbia. The principal author of the material is Dr. H. Karlinsky, Director of Psychiatric Research at the Riverview Hospital.

The CD was developed to provide family physicians and other health care professionals with information on the clinical diagnosis of Alzheimer Disease. It reviews the various aspects of the diagnostic evaluation (obtaining a history, the physical examination, and the laboratory investigations and diagnostic neuroimaging) and the assignment of a clinical diagnosis. I was very impressed with the currency, clarity, and comprehensiveness of the content and the variety of media employed in its presentation (it includes photographs, graphics, animations, and motion videos). It is really fun to use. In addition to providing information and practice tips, it includes self-evaluation questions interspersed throughout the program as well as an interactive case study and a copy of the Mini-Mental State Test which can be printed for use.

The computer system requirements for the CD are as follows:

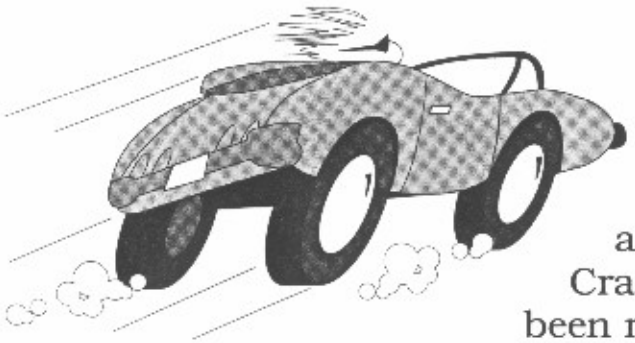
- Windows 95/ Windows 3.1 or MacIntosh System 7 or greater
- IBM PC or compatible 486 33 MHz (minimum; 100 MHz Pentium recommended)
- Super VGA video card and monitor
- 8 MB RAM (16 MB RAM recommended)
- 2x CD-ROM drive (4x CD-ROM recommended)
- Windows compatible sound card
- Mouse

You can obtain a copy of this CD by phoning Novartis at 1-877-631-6775 and asking for the Exelon representative in Ottawa.

The Dementia Network of Ottawa would like to thank Janssen-Ortho Inc. for sponsoring this edition of the *Dementia Newsletter*.

JANSSEN-ORTHO Inc.

Driving Miss Daisy...



By Anna Byszewski
Director, Geriatric Day Hospital, Geriatric Assessment Unit, The Ottawa Hospital, Civic Campus

The Key Issues with Driving and Dementia

Current demographic changes in Canada are influencing the percentage of drivers over age 55 on the road. It is expected that the number will double in the next 50 years. Although seniors are involved in less crashes than younger drivers, when adjusted for kilometers driven, crash rates in this age group approach those in the 16-20 year old age group.

Several medical conditions have been linked to driving ability and or crash rates. These include Parkinson's, cardiac disease, diabetes, seizure disorders, stroke and dementia. Crash rates have been reported to be 2-5 times increased in dementia. It is felt that impairments in divided attention, visual spatial skills and judgment that occur in cognitive loss particularly place individuals with dementia at increased risk of motor vehicle accidents. Many individuals continue to drive despite these deficits.

In Canada all provincial jurisdictions hold medical practitioners responsible to evaluate if their patients are safe to drive. At this time there is no "gold standard" supported by adequate evidence-based research that can be used to evaluate the skills required to safely operate a motor vehicle. Screening tests for cognitive loss such as the Folstein MMSE are not sensitive enough to meet this requirement in certain circumstances such as in the early stages of cognitive loss. On the road testing by specialized centers such as The Rehabilitation Center in Ottawa, recognized by the Ministry of Transportation, can assist in evaluating those that need more in-depth testing. This can be arranged by payment of a fee and a certain waiting period.

Initiatives in the Ottawa Region:

The Dementia Network of Ottawa recognized that this was a gap in our region and a task force was struck in 1997 to address this issue. The "Driving and Dementia Toolkit" was developed with input of many community stakeholders including family physicians. It contains an algorithm for the steps involved in evaluating cognitive loss and driving ability, referral centers, appropriate forms, a short listing of information on this

aspect of dementia care and patient/caregiver aids. The toolkit was published and circulated to all family physicians in the Ottawa region in the spring of 2001. A subgroup of physicians participated in an evaluation phase of this project. Initial results indicate satisfaction (mean score of 8.5/10) and increase in knowledge and confidence gained on dealing with many of the challenging aspects of this issue.

The toolkit has been translated into French and is available on the Regional Geriatric Program website at www.rgapottawa.com.

A further research initiative is being initiated in the Ottawa region, the Canadian Driving Research Initiative for Vehicular Safety in the Elderly (CanDRIVE), under the leadership of Drs. Malcolm Hing, Frank Molnar and Shawn Marshall. The aim of this project is to establish a national multidisciplinary, collaborative approach to identify, analyze and address the issues pertaining to the safe operation of motor vehicles in older persons. A grant application has been submitted to the CIHR New Emerging Teams competition, with a funding decision expected in February, 2002. Inquiries from persons with a research interest in this area are welcomed (Dr. Hing 761-5110). ■

New Program to Link Newly-Diagnosed Individuals & Families to Education & Support

Connect your patients and their families to the **FIRST LINK PROGRAM** at the Alzheimer Society of Ottawa-Carleton. This new program strengthens the link between family physicians, the Alzheimer Society and service providers. Through this early access delivery system, individuals and their families will receive coordinated support, education and linkage to peer volunteers who understand the caregiving journey. Contact the Alzheimer Society office at 523-4004. ■

Free Resource for Families

A comprehensive 12-chapter guide that provides information on commonly-asked questions about Alzheimer journey from beginning to end. Topics include:

- The Disease Drugs and Research
- Understanding the System
- Community Resource Paperwork, and
- Planning When Living at Home is Not Possible

To obtain a copy, call the Alzheimer Society of Ottawa-Carleton at 613-523-4004.

This guide was developed with the collaboration of members of the Dementia Network of Ottawa. ■