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THE CANADIAN JOURNAL OF Neurological Sciences LE JOURNAL CANADIEN DES Sciences Neurologiques

AN INTERNATIONAL JOURNAL / UN JOURNAL INTERNATIONAL



Blister-like Aneurysm



Pineal Cyst

38th CANADIAN CONGRESS OF NEUROLOGICAL SCIENCES June 17 - 21, 2003

Quebec City, Quebec

EDITORIALS

- What are Your Ideas? Canadian Journal of Neurological Sciences and 2003 Douglas W. Zochodne
- What Can Our Nose Tell Us About Possible Treatments for Alzheimer's Disease? Samuel Weiss

COMMENTARY

Epileptogenesis, Ictogenesis and the Design of Future Antiepileptic Drugs Donald F. Weaver

REVIEW ARTICLES

- Progress in Understanding the Pathogenesis of Oculopharyngeal Muscular Dystrophy Xueping Fan, Guy A. Rouleau
- 15 Progress in Clinical Neurosciences: Perioperative Ulnar Neuropathies: A Medicolegal Review John D. Stewart, Stephen H. Shantz

ORIGINAL ARTICLES

- 20 Early Olfactory Involvement in Alzheimer's Disease S. Christen-Zaech, R. Kraftsik, O. Pillevuit, M. Kiraly, R. Martins, K. Khalili and J. Miklossy
- 26 Selection of Neurosurgical Trainees S.T. Myles, S. McAleer
 - Neuromagnetic Somatosensory Responses to Natural Moving Tactile Stimulation Yung-Yang Lin, Matti Kajola
- 36 Neonatal Herpes Encephalitis: A Case Series and Review of Clinical Presentation Cory Toth, Sheri Harder, Jerome Yager
- 41 MRI Contributes to the Differentiation Between MS and HTLV-I Associated Myelopathy in British Columbian Coastal Natives Andrew K. Howard, David K.B. Li, and Joël Oger
- 49 Combined Endovascular/Neurosurgical Therapy of Blister-Like Distal Internal Carotid Aneurysms D.M. Pelz, G.G. Ferguson, S.P. Lownie, E. Kachur

EXPERIMENTAL NEUROSCIENCES

54 EEG Power Spectra Changes and Forebrain Ischemia in Rats Giuseppina Mariucci, Maria Antonietta Stasi, Roberto Taurelli, Paolo Nardò, Michela Tantucci, Licia Pacifici, Paolo Carminati, Maria Vittoria Ambrosini

NEUROIMAGING HIGHLIGHT

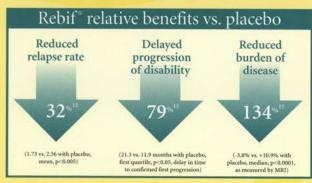
61 Submitted by: A.P. Mitha, J.H. Wong, S.J. du Plessis

CASE REPORTS

- 63 Intracranial Malignant Glioma Presenting as Subarachnoid Hemorrhage Stephen Hentschel, Brian Toyota
- 67 Pineal Apoplexy: Is it a Facilitator for the Development of Pineal Cysts? P.D. McNeely, W.J. Howes, V. Mehta
- 72 Postoperative Reversal of Complete (Monocular) Blindness in Skull Base Meningioma: Case Report Joseph Bampoe, Paul Ranalli, Mark Bernstein
- 75 Late Onset Polyneuropathy due to Organophosphate (DDVP) Intoxication Serhan Sevim, Mustafa Aktekin, Okan Dogu, Hakan Ozturk, Mustafa Ertas

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 Δ Fictitious case may not be representative of results for the general population.



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- 75 Late Onset Polyneuropathy due to Organophosphate (DDVP) Intoxication

Serhan Sevim, Mustafa Aktekin, Okan Dogu, Hakan Ozturk, Mustafa Ertas

- 79 Letters to the Editor
- 80 Books Received
- 80 Book Reviews
- 84 Calendar of Events
- 85 Notes and Announcements / Errata
- A-8 Information for Authors
- A-14 25 Years ago in the Canadian Journal of Neurological Sciences
- A-53 Advertisers Index



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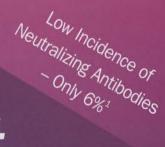
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SAT HU



Kaplan-Meier methodology. AVONEX n=158, placebo n=143.
 AVONEX[®] n=85, placebo n=87.

- @ n=85.
- # As measured by brain parenchymal fraction in the second year of treatment. AVONEX* n=68, placebo n=72.
- AVONEX[®] n=44, placebo n=44. The exact relationship between MRI findings and clinical status is unknown.





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† Open label, 20 week trial (n=450 Adults). Optimal dosing was 300-350 mg/day(Average 288 mg/day).
‡ Open label trial for children (n=72) treated for ≥3 months. Average dose of 10 mg/kg/day.
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A-5

For brief prescribing information see pages A-33, A-34

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There is no evidence that donepezil alters the course of the underlying dementing process. INDICATIONS AND CLINICAL USE ARICEPT (donepezil hydrochloride) is indicated for the symptomatic treatment of patients with mild-to-moderate dementia of the Alzheimer's type. ARICEPT tablets should only be prescribed by (or following consultation with) clinicians who are experienced in the diagnosis and management of Alzheimer's disease. CONTRAINDICATIONS ARICEPT (donepezil hydrochloride) is contraindicated in patients with known hypersensitivity to donepezil hydrochloride or to piperidine derivatives. WARNINGS Anaesthesia: ARICEPT (donepezil hydrochloride), as a cholinesterase inhibitor, is likely to exaggerate succinvichaline-type muscle relaxation during anaesthesia. Neurological Conditions: Seizures: Some cases of seizures have been reported with the use of ARICEPT in clinical trials and from spontaneous Adverse Reaction reporting. Cholinomimetics can cause a reduction of seizure threshold, increasing the risk of seizures. However, seizure activity may also be a manifestation of Alzheimer's disease. The risk/benefit of ARICEPT treatment for patients with a history of seizure disorder must therefore be carefully evaluated. ARICEPT has not been studied in patients with moderately severe or severe Alzheimer's disease, non-Alzheimer dementias or individuals with Parkinsonian features. The efficacy and safety of ARICEPT in these patient populations is unknown. Putmonary Conditions: Because of their cholinomimetic action, cholinesterase inhibitors should be prescribed with care to patients with a history of asthma or obstructive pulmonary disease. ARICEPT has not been studied in patients under treatment for these conditions and should therefore be used with particular caution in such patients. Cardiovascular: Because of their pharmacological action, cholinesterase inhibitors may have vagotonic effects on heart rate (e.g., bradycardia). The potential for this action may be particularly important to patients with "sick sinus syndrome" or other supraventricular cardiac conduction conditions. In clinical trials, most patients with serious cardiovascular conditions were excluded. Patients such as those with controlled hypertension (DBP<95 mmHg), right bundle branch blockage, and pacemakers were included. Therefore, caution should be taken in treating patients with active coronary artery disease and congestive heart failure. Syncopal episodes have been reported in association with the use of ARICEPT. It is recommended that ARICEPT should not be used in patients with cardiac conduction abnormalities (excent for right bundle branch block) including "sick sinus syndrome" and those with unexplained syncopol episodes. Gestrointestinal: Through their primary action, cholinesterase inhibitors may be expected to increase castric acid secretion due to increased cholinergic activity. Therefore, patients at increased risk for developing ulcers, e.g., those with a history of ulcer disease or those receiving concurrent nonsteroidal anti-inflammatory drugs (NSAIDs) including high doses of acetylsalicylic acid (ASA), should be monitored for symptoms of active or occult gastrointestinal bleeding. Clinical studies of ARICEPT have shown no increase, relative to placebo in the incidence of either peptic ulcer disease or castrointestinal bleeding. (See ADVERSE REACTIONS Section) ARICEPT, as a predictable consequence of its pharmacological properties, has been shown to produce, in controlled clinical trials in patients with Alzheimer's disease, diarrhea, nausea and vomiting. These effects, when they occur, appear more frequently with the 10 mg dose than with the 5 mg dose, In most cases, these effects have usually been mild and transient, sometimes lasting one -to- three weeks and have resolved during continued use of ARICEPT. (See ADVERSE REACTIONS Section) Treatment with the 5 mg/day dose for 4-6 weeks prior to increasing the dose to 10 mg/day is associated with a lower incidence of gastrointestinal intolerance. Genitourinary: Although not observed in clinical trials of ARICEPT, cholinomimetics may cause bladder outflow obstruction. PRECAUTIONS Concomitant Use with other Drugs: Use with Anticholinergiss: Because of their mechanism of action, cholinesterase inhibitors have the potential to interfere with the activity of anticholinergic medications. Use with Cholinomimetics and other Cholinesterase Inhibiters: A synergistic effect may be expected when cholinesterase inhibitors are given concurrently with succinylcholine, similar neuromuscular blocking agents or challenergic agonists such as bethanechol. Use with other Psychoactive Drugs: Few patients in controlled clinical trials received neuroleptics, antidepressants or anticonvulsants; there is thus limited information concerning the interaction of ARICEPT with these drugs. Use in Patients 285 Years Old: In controlled clinical studies with 5 and 10 mg of ARICEPT, 536 patients were between the ages of 65 to 84, and 37 patients were aged 85 years or older. In Alzheimer's disease patients, nausea, diarritea, vomiting, insomnia, fatigue and anorexia increased with dose and age and the incidence appeared to be greater in female patients. Since cholinesterase inhibitors as well as Alzheimer's disease can be associated with significant weight loss, caution is advised regarding the use of ARICEPT in low body weight elderly patients, especially in those ≥ 85 years old. Use in Elderly Patients with Comorbid Disease: There is limited safety information for ARICEPT in patients with mild-to-moderate Alzheimer's disease and significant comorbidity. The use of ARICEPT in Alzheimer's disease patients with chronic illnesses common among the geriatric population, should be considered only after careful risk/benefit assessment and include close monitoring for adverse events. Caution is advised regarding the use of ARICEPT doses above 5 mg in this patient population. Renally and Hepatically Impaired: There is limited information regarding the pharmacokinetics of ARICEPT in renally and hepatically impaired Alzheimer's disease patients. Close monitoring for adverse effects in Alzheimer's disease patients with renal or hepatic disease being treated with ARICEPT is therefore recommended. Drug-Drug Interactions: Pharmacokinetic studies, limited to short-term, single-dose studies in young subjects evaluated the potential of ARICEPT for interaction with theophylline, cimetidine, warfarin and digoxin administration. No significant effects on the pharmacokinetics of these drugs were observed. Similar studies in elderly patients were not done. Drugs Highly Bound te Plasma Proteins: Drug displacement studies have been performed in vitro between donepezil, a highly bound drug (96%) and other drugs such as furosemide, digoxin, and warfarin. Donepezil at concentrations of 0.3 - 10 µg/mL did not affect the binding of furosemide (5 µg/mL), digoxin (2 ng/mL) and warfarin (3 µg/mL) to human albumin. Similarly, the binding of donenezil to human albumin was not affected by furgesemide, digoxin and warfarin. Effect of ARICEPT on the Metabolism of Other Drugs: In vitro studies show a low rate of donenazil binding to CYP 344 and CYP 2D6 isoenzymes (mean Ki about 50 - 130 u.M), which, given the therapeutic glasma concentrations of donenazil (164 rM), indicates little likelihood of interferences. In a pharmacokinetic study involving 18 healthy volunteers, the administration of ARICEPT at a dose of 5mu/day for 7 days had no clinically significant effect on the pharmacokinetics of ketoconazole. No other clinical trials have been conducted to investigate the effect of ARICEPT on the clearance of drugs metabolized by CYP 3A4 (e.g., cisapride, tertenadine) or by CYP 2D6 (e.g., imipramine). It is not known whether ARICEPT has any potential for enzyme induction. Effect of Other Drugs on the Metabolism of ARICEPT: Ketoconazole and quinidine, inhibitors of CYP 450, 344 and 2D6, respectively, inhibit donepezil metabolism in vitro. In a pharmacokinetic study, 18 healthy volunteers received 5 mg/day ARICEPT together with 200 mg/day ketoconazole for 7 days. In these volunteers, mean denepezil plasma concentrations were increased by about 30-36%. Inducers of CYP 2D6 and CYP 344 (e.g., phenytoin, carbamazepine, dexamethasone, rifampin and phenobarbital) could increase the rate of elimination of ARICEPT. Pharmacokinetic studies demonstrated that the metabolism of ARICEPT is not significantly affected by concurrent administration of digoxin or cimetidine. Use in Pregnancy and Hursing Mothers: The safety of ARICEPT during pregnancy and lactation has not been established and therefore, it should not be used in women of childbearing potential or in nursing mothers unless, in the opinion of the physician, the potential benefits to the patient outweigh the possible hazards to the fetus or the infant. Teratology studies conducted in pregnant rats at doses of up to 16 mg/kg/day and in pregnant rabbits at doses of up to 10 mg/kg/day did not disclose any evidence for a teratogenic potential of ARICEPT. Pediatric Use: There are no adequate and well-controlled trials to document the safety and efficacy of ARICEPT in any illness occurring in children. Therefore, ARICEPT is not recommended for use in children, ADVERSE REACTIONS A total of 747 patients with mild-to-moderate Alzheimer's disease were treated in controlled clinical studies with ARICEPT (donepezil hydrochloride). Of these patients, 613 (82%) completed the studies. The mean duration of treatment for all ARICEPT groups was 132 days (range 1-356 days). Adverse Events Leading to Discontinuation: The rates of discontinuation from controlled clinical trials of ARICEPT due to adverse events for the ARICEPT 5 mg/day treatment groups were comparable to those of placebo-treatment groups at approximately 5%. The rate of discontinuation of patients who received the 10 mg/day dose after only a 1-week initial treatment with 5 mg/day ARICEPT was higher at 13%. The most common adverse events leading to discontinuation, defined as those occurring in at least 2% of patients and at twice the incidence seen in placebo patients, are shown in Table 1.

Table 1. Most Frequent Adverse Events Leading to Withdrawal from Controlled Clinical Trials by Dose Group

Dose Group	Placebo	5 mg/day ARICEPT	10 mg/day ARICEPT
Number of Patients Randomized	355	350	315
Events/% Discontinuing			
Nausea	1%	1%	3%
Diarrhea	0%	<1%	3%
Vomiting	<1%	<1%	2%

Most Frequent Adverse Clinical Events Seen in Association with the Use of ARICEPT: The most common adverse events, defined as those occurring at a frequency of at least Sis in patients receiving 10 mg/day and twice the placedo rate, are iargely producted by ARICEPT Scholmonrimetic effects. These include rauses, darmae, incomia, vonthing, muscle cramps, taique ad ancrexia. These adverse events were often of mild intensity and transient, resolving during continued ARICEPT treatment without the need for dose modification. There is evidence to suggest that the frequency of these common adverse events may be affected by the duration of treatment without the need for dose modification. There is evidence to suggest that the frequency of these common adverse events may be affected by the duration of treatment withing that may daily dose prior to increasing the dose to 10 mg/day. An open-label study was conducted with 269 patients who received placebo in the 15- and 30-west studies. These patients received a 5 mg/day dose to 6 weeks prior to initiating treatment with 10 mg/day. The rates of common adverse events were lower than those seen in combined clinication and the who received 10 mg/day after only a one-week initial treatment period with a 5 mg/day dose, and were comparable to the rates noted in patients treated only with mg/day. See Table 2 for a comparison of the most common adverse events following one- and six-week initial terment periods with 5 mg/day ARDEPT.

Table 2. Comparison of Rates of Adverse Events in Patients Treated with 10 mg/day after 1 and 6 Weeks of Initial Treatment with 5 mg/day

	No Initial	Treatment	One-Week Initial Treatment with 5 mg/day	Six-Week Initial Treatment with 5 mg/day	
Adverse Event	Placebo (n = 315)	5 mg/day (n = 311)	10 mg/day (n = 315)	10 mg/day (n = 269)	
Nausea	6%	5%	19%	6%	
Diarrhea	5%	8%	15%	9%	
Insomnia	6%	6%	14%	6%	
Fatigue	3%	4%	8%	3%	
Vomiting	3%	3%	8%	5%	
Muscle Cramps	2%	6%	8%	3%	
Anorexia	2%	3%	7%	3%	

Adverse Events Reported in Controlled Trials: The events cited reflect experience gained under closely monitored conditions of clinical trials in a highly selected patient population. In actual clinical practice or in other clinical trials, these frequency estimates may not apply, as the conditions of use, reporting behavior, and the kinds of patients treated may differ. Table 3 lists treatment-emergent signs and symptoms (TESS) that were reported in al least 2% of patients from placebo-controlled clinical trials who received ARICEPT and for which the rate of occurrence was greater for ARICEPT than placebo-assigned patients. In general, adverse events occurred more frequently in female patients and with advancing age.

Table 3. Adverse Events Reported in Controlled Clinical Trials in at Least 2% of Patients Receiving ARICEPT and at a Higher Frequency than Placebo-Treated Patients

Body System/ Adverse Events	Placebo n = 355	ARICEPT r = 747	Body System/ Adverse Events	Placebo n = 355	ARICEPT n = 747
Percent of Patients with any Adverse Event	72	74	Metabolic and Nutritional		
Body as a Whole			Weight Decrease	1	3
Headache	9	10	Musculoskeletal System		
Pain, various locations	8	9	Muscle Cramps	2	6
Accident	6	7	Arthritis	1	2
Fatigue	3	5	Nervous System		
Cardiovascular System			Insomnia	6	9
Syncope	1	2	Dizziness	6	8
Digestive System			Depression	<1	3
Nausea	6	11	Abnormal Dreams	0	3
Diarrhea	5	10	Somnolence	ব	2
Vomiting	3	5	Urogenital		
Anorexia	2	4	Frequent Urination	1	2
Hemic and Lymphatic Systems					
Ecchymosis	3	4			

Other Adverse Events Observed During Clinical Trials: During the pre-marketing phase, ARICEPT has been administered to over 1700 individuals for various lengths of time during clinical trials worldwide. Approximately 1,200 patients have been treated for at least 3 months, and more than 1,000 patients have been treated for at least 6 months. Controlled and uncontrolled trials in the United States included approximately 900 patients. In regards to the highest dose of 10 mg/day, this population includes 650 patients treated for 3 months, 475 patients treated for 6 months and 115 patients treated for over 1 year. The range of patient exposure is from 1 to 1,214 days. Treatment emergent sions and symptoms that occurred during three placebo-controlled clinical trials and two open-label trials were recorded as adverse events by the clinical investigators using terminology of their own choosing. To provide an overall estimate of the proportion of individuals having similar types of events, the studies were integrated and the events were grouped into a smaller number of standardized categories using a modified COSTART dictionary and event frequencies were calculated across all studies. These categories are used in the listing below. The frequencies represent the proportion of 900 patients from these trials who experienced that event while receiving ARICEPT. All adverse events occurring at least twice are included. Adverse events already listed in Tables 2 and 3 are not repeated here (i.e., events occurring at an incidence >2%). Also excluded are COSTART terms too general to be informative, or events less likely to be drug caused. Events are classified by body system and listed as occurring in 21% and 42% of patients (i.e., in 1/100 to 2/100 patients: frequent) or in < 1% of patients (i.e., in 1/100 to 1/1,000 patients: infrequent). These adverse events are not necessarily related to ARICEPT treatment and in most cases were observed at a similar frequency in placebo-treated patients in the controlled studies. Adverse Events Occurring in >1% and <2% or <1% of Patients Receiving ARICEPT: Body as a Whole: (21% and <2%) influenza, chest pain, toothache; (<1%) fever, edema face, periorbital edema, hernia hiatal, abscess, cellulitis, chills, generalized coldness, head fullness, head pressure, listlessness. Cardiovascular System: (21% and <2%) hypertension, vasodilation, atrial fibrillation, hot flashes hypotension; (<1%) angina pectoris, postural hypotension, myocardial infarction, premature ventricular contraction, arrhythmia, AV Block (first degree), congestive heart failure, arteritis, bradycardia, peripheral vascular disease, supraventricular tachycardia, deep vein thromboses. Digestive System: (≥1% and <2%) faecal incontinence, gastrointestinal bleeding, bloating, epigastric pain; (<1%) eructation, gingivitis, increased appetite, flatulence, periodontal abscess, cholelithiasis, diverticulitis, drooling, dry mouth, fever sore, gastrilis, initable colon, tongue edema, epigastric distress gastroenteritis, increased transaminases, haemorrhoids, ileus, increased trinst, jaundice, melena, polydipsia, duodenal ulcer, stomach ulcer. Endocrine System: (<1%) diabetes mellitus, goiter. Hemic & Lymphetic System: (<1%) anaemia, thrombocythemia, thrombocytopenia, eosinophilia, erythrocytopenia. *Metabolic and Nutritional Disorders:* (≥1% and <2%) dehydration; (<1%) gout, hypokalemia, increased creatine kinase, hyperglycemia, weight increase, increased lactate dehydrogenese. *Hascalosteletal System*: (21% and 2%) bone fracture; (<1%) muscle weakness, muscle fractulation. Hervous System; (21% and 2%) delusions, tremor, imtability, paresthesia, aggression, vertigo, atxvia, libido increased, restlessness, abnormal crying, nervousness, aphasia, (<1%) cerebrovascular accident, intracranial hemorrhage, transient ischemic attack, emotional lability, neuralgia, coldness (localized), muscle spasm, dysphoria, gait abrormálty, typetonia, hypokinesia, neurodermátiis, numbress (localized), parancia, dysarthria, dyspitasia, hostilhy, decreased klódo, meiarchelia, emotional withdraval, nystagmus, pacing, seizures. **Respiratory System:** (21% and <2%) dyspnea, sore throat, bronchitis, (<1%) epistaxis, postnasal drip, pneumonia, hyperventilátion, pulmonary congestion, wheezing, hypoxia, pharyngitis, pleurisy, pulmonary collapse, sleep apnea, snoring. Skin and Appendages: (>1% and <2%) abrasion, pruritus, diaphoresis, urticaria, (<1%) dermatitis, erythema, skin discoloration, hyperkeratosis, alopecia, fungal dermatitis, herpes zoster, hirsutism, skin striae, night sweats, skin ulcer. Special Senses: (21% and <2%) cataract, eye irritation, blurred vision; (<1%) dry eyes, glaucoma, earache, tinnitus, blepharitis, decreased hearing, retinal hemorrhage, otitis externa, otitis media, bad taste, conjunctival hemorrhage, ear buzzing, motion sickness, spots before eyes. Urogenital System: (≥1% and <2%) unnary incontinence, nocturia; (<1%) dysuria, hematuria, urinary urgency, metrorrhagia, cystitis, enuresis, prostate hypertrophy, pyelonephritis, inability to empty bladder, breast fibroadenosis, fibrocystic breast, mastitis, pyuria, renal failure, vaginitis. Long-Term Safety: Patients were exposed to ARICEPT in two open-label extension studies (n=865) of over two years. In one of the studies. 763 patients who previously completed one of two placebo-controlled studies of 15 or 30 weeks duration continued to receive ARICEPT and were evaluated for safety and neuropsychological evaluations for up to 152 weeks; the safety profile of ARICEPT in this extension study remained consistent with that observed in placebocontrolled trials. Following one and two years of treatment, 76% (n=580) and 49% (n=374) of these patients, respectively, were still receiving therapy (cumulative weeks 48 and 108). Postmarketing Reports: Voluntary reports of adverse events temporally associated with ARICEPT that have been received since market introduction that are not listed above, and that there is inadequate data to determine the causal relationship with the drug include the following: abdominal pain, agitation, cholecystitis, confusion, convulsions, hallucinations, heart block (all types), hemolytic anemia, hepatitis, hyponatremia, pancreatitis, and rash. DOSAGE AND ADMINISTRATION ARICEPT (donepezil hydrochloride) tablets should only be prescribed by (or following consultation with) clinicians who are experienced in the diagnosis and management of Alzheimer's disease The recommended initial dose of ARICEPT is 5 mg taken once daily. Therapy with the 5 mg dose should be maintained for 4-6 weeks before considering a dose increase, in order to avoid or decrease the incidence of the most common adverse reactions to the drug (see ADVERSE REACTIONS Section) and to allow plasma levels to reach steady state. For those patients who do not respond adequately to the 5 mg daily dose after 4 to-6 weeks of treatment, the 10 mg daily dose may then be considered. The maximum recommended dose is 10 mg taken once daily. Following initiation of therapy or any dosage increase, patients should be closely monitored for adverse effects. Adverse events are more common in individuals of low body weight, in patients ≥ 85 years old and in females. It is recommended that ARICEPT be used with caution in elderly wo low body weight and that the dose should not exceed 5 mg/day. ARICEPT should be taken once daily in the evening, before retring. For patients experiencing insomnia, ARICEPT may be taken in the morning. It may be taken with or without food. In a coopulation of coopitively-impaired individuals, safe use of this and all other medications may require supervision. AVAILABILITY OF DOSAGE FORMS ARICEPT is supplied as film-coated tablets containing 5 mg (white tablets) or 10 mg (yellow tablets) of donepezil hydrochloride. The name ARICEPT and the strength are embossed on each tablet. ARICEPT is available in high density polyethylene (HDPE) bottles of 30 tablets and in blister strips boxed as 28 tablets (combination of 2 strips of 14 tablets)

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A-10

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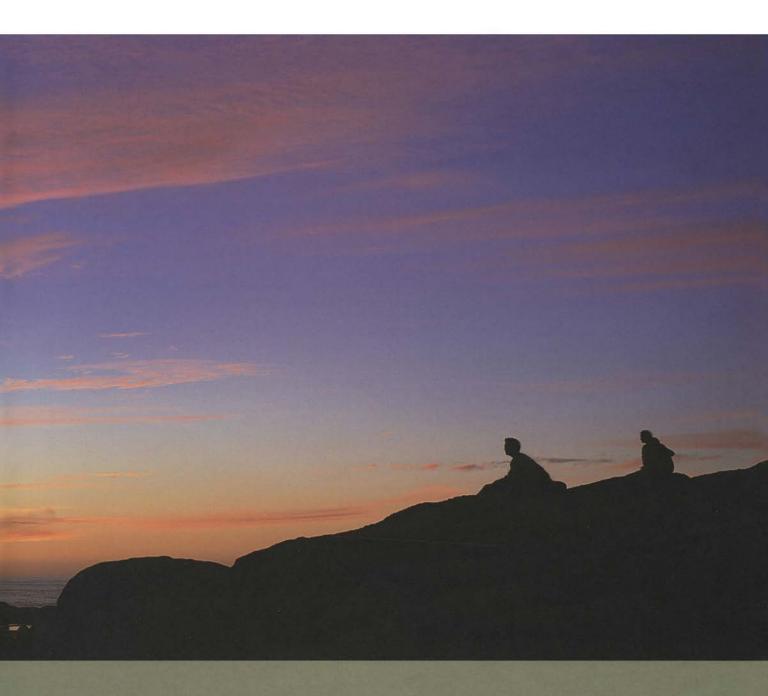


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HALOPERIDOL-INDUCED DYSKINESIAS IN THE MONKEY

P. Bédard, J. Delean, J. Lafleur and L. Larochelle

Summary: Haloperidol (0.25 mg/kg i.m.) was injected daily for six months in six normal monkeys. Over a 24-hour period, the following symptoms could be observed: akathisia, circling, akinesia, choreoathetoid and distonic movements, oro-facial dyskinesias and postural tremor with or without harmaline. Six months after cessation of haloperidol, harmaline-induced postural tremor could still be observed in all animals and oro-facial abnormal movements in one monkey. The neuropathologic study of the experimental material did not disclose any alteration of the central nervous system.

Can. J. Neurol. Sci. 1977;3:197

FUNDAMENTAL NATURE OF HUMAN INFANT'S BRAIN ASYMMETRY

Juhn A. Wada and Alan E. Davis

Summary: Morphological speech zone asymmetry in man cannot be due to environmental or developmental factors after birth. The functional implication of such a finding is not yet clear. Morphological asymmetry of the human brain is paralleled by electrophysiological evidence of cerebral hemispheric asymmetries. The results of our analysis of 50 infants suggest that clear occipital-temporal coherency asymmetry similar, but not identical to the adult pattern, also exists at or near birth. These asymmetries are generated by stimuli with no verbal content and in infants who presumably have no, or an undeveloped, capability for language. It is suggested that language is only a part of much more fundamental asymmetries which include the processing of auditory and visual information. Our results, and those of others, are consistent with the assumption that the left hemisphere is more able to relate stimuli to past experience, either short or long-term, while the right hemisphere is more able to process stimuli which are not easily identifiable or referable. These capabilities would not be based on language, and hence would be expected to develop independently and possible before speech. The demonstration that reversing electrophysiological asymmetries can be generated with non-speech stimuli in the visual and auditory modalities, and in neonates, supports such an assumption. Can. J. Neurol. Sci. 1977;3:203

A NON-PERMANENT TONIC PUPIL IN RHEUMATOID ARTERITIS

David I. Victor, W. Richard Green, Walter J. Stark and Frank B. Walsh

Summary: A 76-year-old male with a severely deforming rheumatoid arthritis, eosinophilia, polymyositis and episcleritis developed a transient tonic pupil. The episcleritis, and a muscle biopsy revealing an occlusive arteritis with eosinophilia, suggest that a wide-spread rheumatoid arteritis caused a reversible ischemic insult to the ciliary ganglion and thus created a transient denervation of the pupil.

Can. J. Neurol. Sci. 1977;3:209

GIANT CELL TUMOR OF THE SPHENOID BONE

Rasikbala Doshi, Abdul Basit Chaudhari and Gordon Thomson

Summary: The clinical and histological features of two cases of giant cell tumor of the sphenoid bone are described. Both presented with similar symptoms and signs, comparable to previously described cases. The problems in histological differential diagnosis are discussed and radiotherapy as the treatment of choice is suggested.

Can. J. Neurol. Sci. 1977;3:213

VASCULAR AMYLOID IN THE AGING CENTRAL NERVOUS SYSTEM CLINICO-PATHOLOGICAL STUDY AND LITERATURE REVIEW

Joseph Bruni, Juan M. Bilbao and Kenneth P.H. Pritzker

Summary: The clinico-pathological features of five patients with vascular amyloid restricted to the central nervous system are presented.

In three normotensive patients, intracerebral hemorrhage was the dramatic manifestation of amyloid angiopathy. In two other cases, one of amyloid in an arteriovenous malformation, the other of amyloid following therapeutic radiation, amyloid deposition was asymptomatic.

Clinically, amyloid angiopathy must be considered in the different diagnosis of intracerebral hemorrhage, independent of the presence of dementia. Pathologically, a factor common to the syndrome of cerebrovascular amyloid appears to be locally increased vascular permeability resulting from a variety of previous tissue injuries.

Can. J. Neurol. Sci. 1977;4:239

PURE SPASTIC PARALYSIS OF CORTICOSPINAL ORIGIN

C.M. Fisher

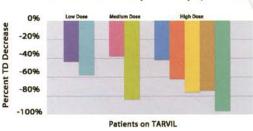
Summary: This presentation includes six cases of chronic bilateral pure motor hemiplegia, one of these with pathological findings; one clinical case of chronic pure motor quadriplegia and one pathologically-studied case of chronic pure motor paraplegia. These cases may illustrate a spectrum of pure corticospinal disorders that heretofore has not been fully recognized.

Can. J. Neurol. Sci. 1977;4:251



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Activities of Daily Living were maintained or improved with a mean difference of more than 3 points vs. placebo on the PDS (p<0.05).^{1‡}

Behaviour and other parameters of global functioning assessed on the CIBIC-Plus were significantly improved vs. placebo (p<0.05).^{2,6}

Cognitive function was maintained or enhanced by a mean difference of almost 5 points vs. placebo on the ADAS-Cog (p<0.001).^{3,¶}

Now, EXELON can help many of your patients with Alzheimer Disease look forward to staying at home a while longer.

EXELON (rivastigmine as the hydrogen tartrate salt) is indicated for the symptomatic treatment of mild to moderate dementia of the Alzheimer type.

The most common side effects associated with EXELON therapy are generally mild and of short duration, occur mainly in the titration phase, and usually subside with continued treatment. During maintenance therapy, the most common side effects at doses of 6-12 mg/day were nausea (15%), vomiting (14%) and dizziness (10%)⁴.

EXELON has not been studied in controlled clinical trials for longer than 6 months. There is no evidence that rivastigmine alters the course of the underlying dementing process.

- [†] Comparative clinical significance has not been established
- 11 Based on EXELON dosages of 6-12 mg/day
- Double-blind, randomized, placebo-controlled, international multicentre clinical trial; n=725. PDS=Progressive Deterioration Scale.
- § Pooled results from three prospective, randomized, double-blind, placebo-controlled, international
- multicentre clinical trials; n=2126. CIBIC-Plus=Clinician Interview-Based Impression of Change Scale. Prospective, randomized, double-blind, placebo-controlled, clinical trial; n=699. ADAS-Cog= Alzheimer Disease Assessment Scale, Cognitive Subscale.
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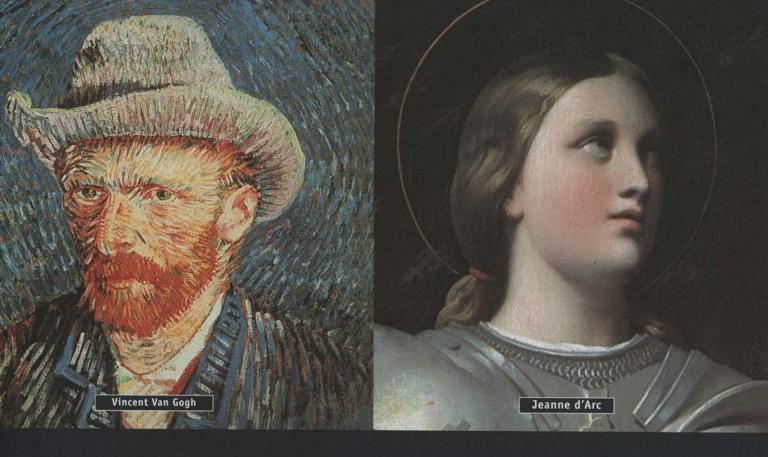


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To Help Preserve Independence



AUPARAVANT, LES PERSONNES ÉPILEPTIQUES DEVAIENT SE MONTRER EXCEPTIONNELLES POUR RÉUSSIR.

Sir Isaac Newton

://doi.org/10.1017/S0317167100050393 Published online by Cambridge University Pr

Charles Dickens

EFFICACE CONTRE UN GRAND NOMBRE DE TYPES DE CRISES.

- TOPAMAX est efficace contre les crises partielles initiales, les crises tonico-cloniques primaires généralisées et les crises associées au syndrome de Lennox-Gastaut¹
- Des résultats souhaitables avec absence totale de crises chez 19 % des adultes[†] et 22 % des enfants[†] atteints de crises partielles initiales2.3

AUCUN SIGNE D'EFFETS SECONDAIRES CAPABLES DE MENACER LE PRONOSTIC VITAL.

 Comme pour la plupart des antiépileptiques, les effets secondaires le plus fréquemment signalés relèvent du SNC et sont généralement légers à modérés et de nature passagère^{\$1}

IL EST POSSIBLE OUE LES PATIENTS ADULTES SUBISSENT UNE PERTE DE POIDS.

- 73 % (n = 52) des patients ont subi une perte de poids de 5,97 lb en moyenne (Analyse provisoire. Durée moyenne de 60 jours)4
- 96 % des enfants traités dans le cadre des essais cliniques pendant au moins un an et ayant subi une perte de poids ont repris du poids au cours de la période d'exécution des essais"1

AUJOURD'HUI, IL Y A TOPAMAX.

UNE POSOLOGIE BIQUOTIDIENNE POUR TENIR COMPTE DU PATIENT.

- Le traitement par TOPAMAX peut être commencé et ajusté selon la réponse clinique quel que soit le traitement anticonvulsivant en cours
- Les comprimés sont inscrits au formulaire^{††}

MAINTENANT **OFFERT EN CAPSULES** À SAUPOUDRER



MAINTENANT INDIQUÉ CHEZ L'ENFANT

POUR AIDER LES PATIENTS À MIEUX PROFITER DE LA VIE

Comprimés et capsules à saupoudrer "TOPAMAX* (topiramate) : indiqués comme traitement adjuvant chez les patients (adultes et enfants âgés de deux ans ou plus) atteints d'épilepsie dont l'état n'est pas maîtrisé de façon satisfaisante avec le traitement traditionnel. Les renseignements sur l'emploi du topiramate en monathérapie sont encore limités'.

t/Une étude ouverte d'une durée de 20 semaines (n = 450 adultes). Posologie optimale : 300 à 350 mg/jour (moyenne : 288 mg/jour). Etude ouverte portant sur des enfants (n = 72) traités pendant au moins 3 mois, Posologie moyenne : 10 mg/kg/jour. Bunifestations indésirables lides au SNC : Somnolence (30.1 %). étourdissements (28.3 %), ataxie (21.2 %), troubles de la parole (16.8 %), ralentissement psychomoteur (16.8 %), nystagmus (15 %), paresthésie (15 %), nervosité (15.9 %), difficulté à se concentrer/troubles de Tattertion (8 %), contision (9.7 %), déprestion (8 %), anoxie (5.3 %), problems de langage (6.2 %) et troubles de l'humeur (3.5 %). Une évaluation de 1 446 adultes et 303 enfants a indiqué que ces deux groupes semblent présenter des profils de manifestations indésirables simila "Les éffets à long terme d'une perte de poids chere les enfants ne sont pas connus. "Les éffets à long terme d'une perte de poids chere de poids chere. Fuite seffets à long terme d'une perte de poids chere. "Les éffets à long terme d'une perte de poids chere. Fuite seffets à long terme d'une perte de poids chere. Fuite seffets à long terme d'une perte de poids chere. Fuite seffets à long terme d'une perte de poids chere. Fuite seffets à long terme d'une perte de poids chere. Fuite seffets à long terme d'une perte de poids chere. Fuite seffets à long terme d'une perte de poids chere. Fuite seffets à long terme d'une perte de poids chere. Fuite seffets à long terme d'une poids chere. Fuite seffets à long terme d'une poids chere. Fuite seffets à long terme d'une poids chere. Fuite seffets a long terme d'une poids chere. Fuite se

RÉFÉRENCES : 1. Monographie des camprimés et capsules à saupoudrer TOPAMAX* (topiramate), 11 mai 1999; 2. Kamin M, Kraut L, Olson W. Dose optimization of topiramate as add-on therapy in adults with treatment-resistant partial-onset seizures Neurology 1999;52 (Suppl 2):A525-526. 3. Glauser TA, Elterman R. Wyllie E et ol. Open label topiramate in paediatric partial epilepsy Epilepsio 1997;38 (Suppl 3):94. 4. Rosenfeld WE et ol. Topiramate and concomitant weight loss. Epilepsio 1997;38 (Suppl 8):98.

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A-21

Pour documentation voir pages A-33, A-34



Canadian Congress of Neurological Sciences 38th Annual Scientific Meeting

June 17-21, 2003 **Quebec City Convention Centre**

Scientific Program (Subject to Change)

Tuesday, June 17, 2003

Pre-Congress Courses 08:00-17:30 Neurobiology Review Course 09:00-16:00 5th Annual ALS Strategies for Quality Life/Quality Care 18:00-21:00 Movement Disorders Video Session

Wednesday, June 18th, 2003

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07:30-17:00	Controversies in Spinal Neurosurgery
08:00-17:30	Epilepsy Review and Update Course
08:00-17:30	Clinical Neurology of Headache 2003
08:00-12:00	Neuroanatomy Review Course
08:00-12:00	Muscle Diseases 2003: Floppiness, Cramps, and Inflammation
13:30-17:30	The CSCN EEG Exam and the New Canadian EEG Guidelines Course
13:30-17:30	Brain Tumor Course
18:00-20:00	Welcome Reception

Thursday, June 19, 2003

08:30-10:30	Neurophysiologic Applications in Neuroscience
11:00-19:00	Poster session
11:00-13:00	Platform sessions
14:30-16:00	Platform sessions
16:00-17:30	Grand Rounds
17:30-19:00	Special Poster Viewing

Friday, June 20, 2003

08:30-10:30	New Developments in Neuropharmacology
11:00-13:00	Platform sessions
11:00-15:00	Poster session
14:30-16:30	Beyond Alzheimer's Disease: The Non-Alzheimer's Dementias Mini-Symposium
14:30-16:30	Case Histories in Neurocritical Care: Mini Symposium
14:30-16:30	What's New in Neurosurgery? Mini Symposium
14:30-16:30	Myasthenia Gravis Mini-Symposium
19:30	Quebecois Soirée

Saturday, June 21, 2003

08:00-17:30	Multiple Sclerosis Symp	osium
08:00-17:30	Interventional Advance	s in
	Neurovascular D	isease
08:00-17:30	Child Neurology	a 77





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for the management of patients at increased risk of cardiovascular events.

Guarding beyond hypertension

ALTACE may be used to reduce the risk of MI, stroke, or CV death in patients over age 55 who are at high risk of CV events because of a history of CAD, stroke, peripheral artery disease, or diabetes accompanied by at least one other CV risk factor such as hypertension, elevated total cholesterol levels, low HDL levels, cigarette smoking, or documented micro-albuminuria.

Like other ACE inhibitors, ALTACE is not recommended for pregnant or lactating women and should be used with caution in patients with renal insufficiency.

The most frequent adverse events occurring in clinical trials with ALTACE monotherapy in hypertensive patients who were treated for at least one year (n=651) were: headache (15.1%); dizziness (3.7%); asthenia (3.7%); chest pain (2.0%). Discontinuation of therapy due to clinical adverse events was required in 5 patients (0.8%).



ALTACE

(RED PAAB ADALTO1021E

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COPAXONE



Rethinking Parkinson's.

ropinirole (as ropinirole hydrochloride) Tablets: 0.25 mg, 1.0 mg, 2.0 mg, 5.0 mg THERAPEUTIC CLASSIFICATION AntiParkinsonian Agent / Dopamine Agonist INDICATIONS AND CLINICAL USE

REQUIP (ropinirole hydrochloride) is indicated in the treatment of the signs and symptoms of idiopathic Parkinson's disease. REQUIP can be used both as early therapy, without concomitant levodopa and as an adjunct to levodo

CONTRAINDICATIONS

REQUIP (ropinirole hydrochloride) is contraindicated in patients with a known hypersensitivity to ropinirole hydrochloride or the excipients of the drug product.

WARNINGS

Orthostatic Symptoms - Dopamine agonists appear to impair the systemic regulation of blood pressure with resulting orthostatic symptoms of dizziness or lightheadedness, with or without documented hypotension. These symptoms appear to occur especially during dose escalation. Therefore, patients treated with dopamine agonists should be carefully monitored for signs and symptoms of orthostatic hypotension, especially during dose escalation and should be informed of this risk. Hallucinations - In controlled trials. REQUIP (ropinirole hydrochloride) caused hallucination in 5.1% of patients during early therapy (1.4% in the placebo group) and in 10.1% of patients receiving REQUIP and levodopa (4.2% receiving placebo and levolopa). Hallucination was of sufficient severity that it led to discontinuation in 1.3% and 1.9% of patients during early and adjunct therapy, respectively. The incidence of hallucination was dose-dependent both in early and adjunct therapy studies.

PRECAUTIONS

Cardlovascular - Since REQUIP (ropinirole hydrochloride) has not been studied in patients with a history or evidence of significant cardiovascular disease including myocardial infarction, unstable angina, cardiac decompensation, cardiac arrhythmias, vaso-occlusive disease (including cerebral) or cardiomyopathy, it should be used with caution in such patients. There is limited experience with REQUIP in patients treated with antihypertensive and antiarrhythmic agents. Consequently, in such patients, the dose of REQUIP should be titrated with caution. Neuroleptic Malignant Syndrome - A symptom complex resembling the neuroleptic malignant syndrome (characterized by elevated temperature, muscular rigidity, altered consciousness, and autonomic instability), with no other obvious etiology, has been reported in association with rapid dose reduction, withdrawal of, or changes in anti-Parkinsonian therapy. A single spontaneous report of a symptom complex resembling the neuroleptic malignant syndrome has been observed in a 66 year old diabetic male patient with Parkinson's disease, who developed fever, muscle stiffness, and drowsiness 8 days after beginning REQUIP treatment. The patient also experienced acute bronchits, which did not respond to antibiotic treatment. REQUIP was discontinued three days before the patient died. The reporting physician considered these events to be possibly related to REQUIP treatment. A single spontaneous report of severe muscle pain has been reported in a 66 year old male patient around his thigh. The reporting physician considered the event to be probably related to REQUIP treatment. Retinal Pathology in Rats - In a two year carcinogenicity study in albino Sprague-Dawley rats, retinal atrophy was observed at incidences of 0%, 1.4%, 1.4% and 10% of male rats and 0%, 4.4%, 2.9% and 12.9% of female rats dosed at 0, 1.5, 15 and 50 mg/kg/day respectively. The incidence was significantly higher in and 50 mg/kg/day respectively. The incidence was significantly higher in both male and female animals dosed at 50 mg/kg/day. The 50 mg/kg/day dose represents a 2.8 foid greater exposure (AUC) and a 13.1 foid greater exposure (G_{max}) to ropinirole in rats than the exposure would be in humans at the maximum recommended dose of 24 mg/day. The relevance of this finding to humans is not known. **Pregnancy** – The use of REQUIP during pregnancy is not recommended. REQUIP given to pregnant rats during organogenesis (gestation days 8 through 15) resulted in decreased fetal body weight at 60 mg/kg/day (approximately 3 - 4 times the AUC at the maximal human dose of 8 mg t.1.0), increased fetal death a 90 mg/kg/day (approximately 5 times the AUIC at the -4 times the AUC at the maximal human dose of 8 mg 1.1.0), increased fetal death at 90 mg/kg/day (approximately 5 times the AUC at the maximal human dose of 8 mg 1.i.d) and digital malformations at 150 mg/kg/day (approximately 8-9 times the AUC at the maximal human dose of 8 mg 1.i.d). These effects occurred at maternally toxic doses. There was no indication of an effect on development of the conceptus at a maternality toxic dose of 20 mg/kg/day of REQUIP (approximately 0.5 - 0.6 times the AUC at the maximal human dose of 8 mg 1.1.d). times the AUC at the maximal human dose of 8 mg t.t.d) impaired growth and development of nursing offspring and altered neurological development of female offspring. Nursing Mothers – Since REQUP suppresses lactation, it should not be administered to mothers who wish to breast-feed infants. Studies in rats have shown that REQUIP and/or its metabolites cross the placenta and are excreted in breast milk. Consequently, the human fetus and/or neonate may be exposed to dopamine agonist activity. Use in Women receiving Estrogen Replacement Therapy – In female patients on long-term treatment with conjugated estrogens, oral clearance was reduced and elimination halflife prolonged compared to patients not receiving estrogens (see Pharmacokinetics). In patients, already receiving estrogen replacement therapy, REQUIP may be titrated in the recommended manner according to clinical response. However, if estrogen replacement therapy is stopped or introduced during treatment with REQUIP, adjustment of the REQUIP dosage may be required. Pediatric Use - Safety and effectiveness in the pediatric population have not been established. Renal and Hepatic Impliment – No dosage adjustment is needed in patients with mild to moderate renal impairment (creatinine clearance of 30 to 50 mL/min). Because the use of REQUIP in patients with severe renal impairment or hepatic impairment has not been studied, administration of REQUIP to such patients is not recommended. **Drug Interactions** – *Psychotropic Drugs*: Neuroleptics and other centrally active dopamine antagonists may diminish the effectiveness of REQUIP. Therefore, concomitant use of these products is not recommended. Based on population pharmacokinetic assessment, no interaction was seen between REQUIP and tricyclic antidepressants or benzodiazepines. Anti-Parkinson Drugs: Based on population pharmacokinetic assessment, there were no interactions between REQUIP and drugs commonly used to treat Parkinson's disease, i.e., selegiline, amantadine, and anticholinergics. Levodopa: The potential pharmacokinetic interaction of levodopa/carbidopa (100 mg/10 mg b.i.d.) and REQUIP (2 mg t.i.d.) was assessed in levodopa naive (*de novo*) male and female patients with Parkinson's disease (n=30, mean age 64 years). The rate and extent of availability of REQUIP at steady state were essentially the same with or without levodopa. Similarly, the rate and extent of availability of levodopa, as well as its elimination half-life, were essentially the same in the presence and absence of REQUIP. Inhibitors of CYP1A2: Ciprofloxacin: The effect of ciprofloxacin (500 mg b.i.d.) on the pharmacokinetics of REQUIP (2 mg t.i.d.) was studied in male and female patients with Parkinson's disease (n=12, mean age 55 years). The extent of systemic availability of REQUIP was significantly increased when coadministered with ciprofloxacin (AUC increased by 1.84 fold). Thus, in patients already receiving CYP1A2 inhibitors such as ciprofloxacin, REQUIP therapy may be instituted in the recommended manner and the dose titrated according to clinical response. However, if therapy with a drug known to be an inhibitor of CYP1A2 is stopped or introduced during treatment with REOUP, adjustment of the REOUP dosage will be required. Substrates of (PCP142: Theophylline: The effect of oral theophylline (300 mg b.i.d.) on the pharmacokinetics of REQUIP (2 mg t.i.d.) was studied in male and female patients with Parkinson's disease (n=12, mean age 59 years). There was no marked change in the rate or extent of availability of REQUIP when coadministered with theophylline. Similarly, coadministration of REQUIP with intravenous theophylline (5 mg/kg) did not result in any marked change in the pharmacokinetics of theophylline. It is therefore unlikely that substrates of CYP1A2 would significantly alter the pharmacokinetics of REQUIP, and vice-versa. *Digoxin*: The effect of REQUIP (2 mg t.i.d.) on the pharmacokinetics of digoxin (0.125-0.25 mg o.d.) was studied in male and female patients with Parkinson's disease 0.0.) was studied in male and remain patients with Parkinson's disease (n=10, mean age 72 years). Coadministration at steady state with REQUIP resulted in a 10% decrease in digoxin AUC although mean trough digoxin plasma concentrations were unaltered. However, the effect of higher recommended doses of REQUIP on the pharmacokinetics of digoxin is not known. Alcohol: No information is available on the potential for interaction between REOUIP and leaded lead with extern activity active. interaction between REQUIP and alcohol. As with other centrally active medications, patients should be cautioned against taking REQUIP with alcohol. Psycho-Motor Performance – As orthostatic symptoms of dizziness or lightheadedness as well as somnolence may occur during REQUIP therapy patients should be cautioned not to drive a motor vehicle or operate potentially hazardous machinery until they are reasonably certain that REQUIP therapy does not affect their ability to engage in such activities

ADVERSE REACTIONS

Adverse Reactions Associated with Discontinuation of Treatment - Of 1599 patients who received REQUIP (ropinirole hydrochloride) during the premarketing clinical trials, 17.1% in early-therapy studies and 17.3% in adjunct-therapy studies discontinued treatment due to adverse reactions. The events resulting in discontinuation of REQUIP in 1% or more of patients were as follows: *Early therapy:* nausea (6.4%), dizziness (3.8%), aggravated Parkinson's disease (1.3%), hallucination (1.3%), headache (1.3%), somnolence (1.3%) and vomiting (1.3%). Adjunct therapy: (13.%) solution (13.%) and volimiting (13.%). Application and a solution (13.%). Application and a solution (13.%), and a solution (13.%), nause a (19%), anxiety (1.9%), and increased sweating (1.4%). Patients over 75 years of age (n=130) showed slightly higher incidences of withdrawal due to hallucination, confusion and the solution and the dizziness than patients less than 75 years of age. Most Frequent Adverse Events - Adverse events occurring with an incidence of greater than, or equal to, 10% were as follows: *Early therapy:* nausea, dizziness, somnolence, headache, peripheral edema, vomiting, syncope, fatigue and viral infection. Adjunct therapy: dyskinesia, nausea, dizziness, somnolence and headache. Dopamine agonists, with an ergoline chemical structure have been associated with adverse experiences such as retroperitoneal fibrosis, erythromelalgia and pulmonary reactions. REQUIP has a novel, non-ergoline chemical structure and no reports of such events have been observed in clinical trials. Incidence of Adverse Events in Placebo Controlled Trials - The incidence of postural Events in Placebo Controlled infats – Inte incidence of posturial hypotension, an event commonly associated with initiation of dopamine agonist therapy, was not notably different from placebo in clinical trials. However, decreases in systolic blood pressure to < 90 mmHg have been observed in 13% (<65 years), 16% (65 -75 years) and 7.6% (<75 years) of patients treated with REDUIP Table 1 lists adverse events that occurred table plotted and from the treated patients when the treated the treated that be the treated the treated to the treated to the treated the treated to the treated the treated to the at an incidence of 2% or more among REQUIP-treated patients who participated in placebo-controlled trials for up to one year. Patients were dosed in a range of 0.75 mg to 24 mg/day. Reported adverse events were classified using a standard World Health Organization (WHO)-based dictionary terminology. The prescriber should be aware that these figures can not be used to predict the incidence of adverse events in the course of usual medical practice where patient characteristics and other factors differ from those which prevailed in the clinical trials. Similarly, the cited investigations involving different treatments, uses and investigations. The title investigations involving different treatments, uses and investigators. The cited figures, however, do provide the prescribing physician with some basis for estimating the relative contribution of drug and non-drug factors to the adverse events incidence rate in the population studied. The Adverse Reactions section has been condensed. See full Product Monograph for the complete information.

DOSAGE AND ADMINISTRATION

REQUIP (ropinirole hydrochloride) should be taken three times daily. While administration of REQUIP with meals may improve gastrointestinal tolerance, REQUIP may be taken with or without food. The recommended starting dosage is 0.25 mg breaker mid within the starting dosage in dividual patient response, dosage should then be titrated by weekly increments of 0.25 mg per dose as described in the table below. After week 4, daily dosage may be increased by 0.5 to 1.0 mg per dose on a weekly basis up to 24 mg per day. Doses greater than 24 mg/day have not been tested in clinical trials. Smaller dose increments are recommended for patients who may be at risk for orthostatic symptoms. In clinical trials, initial benefits were observed with 3 mg/day and higher doses.

		Week			
	1 2 3 4				
Unit Dose (mg)	0.25	0.5	0.75	1.0	
Total Daily Dose (mg)	0.75	1.5	2.25	3.0	

TABLE 1
Adverse events with incidence ≥2% from all placebo-controlled early
and adjunct therapy studies

and adjunct therapy studies							
	Early 1	'herapy	Adjunct Therapy				
	REQUIP Placebo N = 157 N = 147 % occurrence % occurrence		REQUIP N = 208 % occurrence	Placebo N = 120 % occurrence			
Autonomic Nervous System Sweating Increased Mouth Dry	6.4 5.1 3.2	4.1 3.4 0.7	7.2 5.3	1,7 0.8			
Flushing Body as a Whole General		0.7	1.4	0.8			
Body as a Whole General Peripheral Edema Fatigue Injury	13.4 10.8	4.1 4.1	3.9 a 10.6	2.5 - 9.2			
Pain Asthenia	7.6	4.1 1.4	5.3	3.3			
Drug Level Increased	6.4 4.5	2.7	6.7	3.3			
Chest Pain Malaise	3.8 3.2	2.0	1.4	0.8			
Cardiovascular General Syncope	11.5	1.4	2.9	1.7			
Hypotension Postural	6.4	4.8 3.4	3.4	3.3			
Hypertension Hypotension	4.5 1.9	0.0	2.4	0.8			
Central and Peripheral Nervous System							
Dizziness	40.1	21.8	26.0 33.7	15.8			
Dyskinesia Headache	17.2	17.0	16.8	12.5 11.7			
Ataxia (Falls) Tremor	-	-	9.6 6.3	6.7 2.5			
Paresthesia Hyperesthesia	3.8	2.0	5.3	2.5			
Dystonia	-	1 -	4.3	4.2			
Hypokinesia Paresis		-	5.3 2.9	4.2 0.0			
Gastrointestinel System Nausea	59.9	21.8	29.8	18.3			
Vemiting	12.1	6.8	7.2	4.2			
Dyspepsia Constipation	9.6 8.3	4.8 7.5	5.8	3.3			
Abdominal Pain Diarrhea	6.4	2.7	8.7 4.8	7.5			
Anorexia	3.8 2.5	1.4	1.9	0.8			
Saliva Increased	-	-	2.4	0.8			
Dysphagia Heart Rate and Rhythm	1.3	0.0	2.4	0.8			
Palpitation	3.2	2.0	2.9	2.5			
Metabolic and Nutritional Aikaline Phosphate Increased Weight Decrease	2.5	1.4	1.0 2.4	0.0 0.8			
Musculoskeletal System Arthralgia			6.7	5.0			
Arthritis		-	2.9	0.8			
Psychiatric Somnolence	40.1	6.1	20.2	8.3			
Anxiety Confusion	5.1	1.4	6.3 8.7	3.3			
Hallucination	5.1	1.4	10.1	4.2			
Nervousness Yawning	3.2	0.0	4.8	2.5			
Amnesia Dreaming Abnormal	2.5	1.4	4.8	0.8			
Red Blood Cell Anemia	i _	-	2.4	0.0			
Reproductive Male Impotence	2.5	1.4	-				
Resistance Mechanism							
Upper Respiratory Tract Infection Infection Viral	10.8	3.4	8.7 7.2	8.3 6.7			
Respiratory System Pharyngitis	6.4	4.1		_			
Rhinitis	3.8 3.8	2.7	-	-			
Sinusitis Dyspnea	3.2	0.0	2.9	1.7			
Bronchitis	2.5	1.4	-				
Urinary System Urinary Tract Infection	5.1	4.1	6.3	2.5			
Vascular Extracardiac Peripheral Ischemia	2.5	0.0	-	-			
Vision Vision Abnormal	5.7	3.4	-	-			
Eye Abnormality	3.2	1.4	-				

a: Incidence of adverse event <1%

When REQUIP is administered as adjunct therapy to levodopa, the dose of levodopa may be decreased gradually as tolerated once a therapeutic effect with REQUE has been observed. REQUIP should be discontinued gradually over a 7-day period. The frequency of administration should be reduced from three times daily to twice daily for 4 days. For the remaining 3 days, the frequency should be reduced to once daily prior to complete withdrawal of REQUIP. Renal and Hepatic Impairment: In patients with mild to moderate renal impairment, REQUIP may be titrated in the recommended manner according to clinical response. Patients with severe renal impairment or on hemodialysis have not been studied and administration of REQUIP to such patients is not recommended. Patients with hepatic impairment have not been studied and administration of REQUIP to such patients is not recommended. Estrogen Replacement Therapy: In patients already receiving estrogen replacement therapy, REQUIP may be titrated in the recommended manner according to clinical response. However, if estrogen replacement therapy is stopped or started during treatment with REQUIP, adjustment of the REQUIP dosage may be

required. AVAILABILITY OF DOSAGE FORM

AVAILABILIT OF UDSAGE FORM REDUP is supplied as a pertagonal film-coated Tiltab® tablet with beveled edges containing ropinirole (as ropinirole hydrochloride) as follows: 0.25 mg – white imprinted with SB and 4890; 1.0 mg – green imprinted with SB and 4892; 2.0 mg – pale pink imprinted with SB and 4893; 5.0 mg – blue tablets imprinted with SB and 4894, REQUIP is available in tables in the part pink of 20 behas the late available in 20 Service bottles in the pack size of 100 tablets. It is also available in 0.25 mg as a single unit blister pack of 21 tablets.

Full Product Monograph available to practitioners upon request REFERENCES:

1. Rascol O, et al. Ropinirole in the Treatment of Early Parkinson's Disease: A 6-Month Interim Report of a 5-Year Levodopa-controlled

Disease. A G-Month Internin Applor of a 5-rear Levolupa-controlled Study. Mov Disord 1998;1:39-45.
2. Schrag AE, et al. The Safety of Ropinirole, a selective non-ergoline dopamine agonist in patients with Parkinson's disease. Clin Neuropharmacol 1998;21:169-175.



Mississauga, Ontario, Canada L5N 6L4

R&D PAAB

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IF YOU STARTED PATIENTS ON REQUIP, WOULD THE FUTURE LOOK DIFFERENT?

Interim 6-month results from a 5 year multicentre study show ReQuip demonstrated similar efficacy to L-dopa in the control of early[†] Parkinson's disease.^{1+†} Yet ReQuip has demonstrated a low propensity to produce dyskinesias.^{2+††} Maybe it's time to rethink Parkinson's. And start early Parkinson's patients on ReQuip alone.

ReQuip (ropinirole hydrochloride) is indicated in the treatment of the signs and symptoms of idiopathic Parkinson's disease.

Nausea (39.1%), somnolence (12.3%) and insomnia (12.3%) were the most common side effects of ReQuip therapy. Six percent of ropinirole patients and nine percent of L-dopa patients had at least one psychiatric symptom (confusion, hallucinations, or delusions).

† Hoehn and Yahr stages I-II †† A 6 month interim analysis of a 5-year, double-blinded, randomized, multicenter study of patients with early Parkinson's disease. N = 268:179 patients received ropinirole and 89 received L-dopa. The mean daily dose was 9.7 mg and 464.0 mg respectively. There was no difference in Clinical Global Improvement scale in patients with Hoehn and Yahr stages I-II although L-dopa showed improvement in a greater proportion of patients with more severe disease. The proportion of responders was 58% in the L-dopa group and 48% in the ropinirole group: this was not of statistical significance. ††† In early therapy, the respective incidences of dyskinesia in early therapy of patients receiving ropinirole was 1.2% and of patients receiving L-dopa was 11.2%. Meta analysis, n = 1364, 17 months.







Rethinking Parkinson's. A-27





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Watch for your password in the mail for this new section, which will also provide access to the Canadian Journal of Neurological Sciences (CJNS) online.

REMARKATION AND A CONTRACT OF ALZHEIMER'S DISEASE

References:

- REMINYL* (galantamine hydrobromide) Product Monograph, JANSSEN-ORTHO Inc., July 19, 2001.
 Maelicke A, Albuquerque EX. *Eur J Pharmacol* 2000;393:165-170.
- tt Exception drug status effective January 1, 2002.

RMJA021007A (RGD) PAAB

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Micotinic Receptor Modulation

Cholinesterase Inhibition

Unique proposed mode of action:

Cholinesterase inhibition and nicotinic modulation^{1,21}

New REMINYL: The difference may be nicotinic modulation'

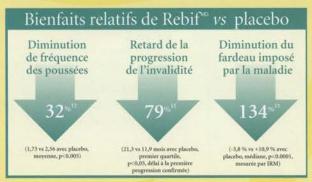
More than just cholinesterase inhibition, REMINYL enhances the action of acetylcholine through binding to an allosteric site on the nicotinic receptors¹²¹

+ Based on *in vitro* data. The clinical relevance to humans is unknown. The majority of common side effects occurred during the dose-escalation period and were primarily gastrointestinal. During maintenance therapy, the most common side effects were: REMINYL 16 mg/day-nausea (4%) and diarrhea (5%); REMINYL 24 mg/day-nausea (6%), vomiting (6%) and anorexia (5%).

REMINYL (galantamine hydrobromide) is indicated for the symptomatic treatment of patients with mild to moderate dementia of the Alzheimer's type. REMINYL has not been studied in controlled clinical trials for longer than 6 months. There is no evidence that galantamine alters the course of the underlying dementing process.



Visualisez ce que Rebif[™] peut faire pour vos patients atteints de SEP[△].



Résultats de la dose de 44 mcg trois fois par semaine après 2 ans¹.

Au cours de deux études pivots incluant un total de 628 patients, Rebif a démontré une efficacité significative pour les trois paramètres principaux (poussées, progression de l'invalidité et IRM)^{1,2}.

Sa capacité de modifier le cours de la maladie² a fait non seulement de Rebif un bon médicament de première ligne pour la SEP rémittente, mais également le médicament dominant de sa catégorie³.

=_ serono

Rebif est généralement bien toléré. Les effets indésirables les plus fréquents sont souvent traitables et diminuent en fréquence et en gravité avec le temps^{2†}.

Rebif modifie l'évolution naturelle de la SEP rémittente².

Rebif⁶⁰ est indiqué pour le traitement de la sclérose en plaques rémittente chez des patients dont la cote EDSS se situe entre 0 et 5,0, afin de réduire le nombre et la gravité des poussées cliniques, de ralentir la progression de l'invalidité physique et de réduire les besoins de corticothérapie et le nombre de séjours à l'hôpital pour le traitement de la sclérose en plaques. Son efficacité a été confirmée au moyen d'évaluations IRM en T, marquées au Gd et d'évaluations IRM en T₄ (fardeau imposé par la maladie)².

† Les effets indésirables rapportés le plus souvent sont les suivants : réactions au point d'injection (toutes) (92,4 % vs 38,5 % pour le placebo), infections des voies respiratoires supérieures (74,5 % vs 85,6 % pour le placebo), céphalée (70,1 % vs 62,6 % pour le placebo), syndrome pseudo-grippal (58,7 % vs 51,3 % pour le placebo), fatigue (41,3 % vs 35,8 % pour le placebo) et fièvre (27,7 % vs 15,5 % pour le placebo). Les preuves d'innocuité et d'efficacité sont obtenues de l'étude de 2 ans seulement. Veuillez consulter la monographie du produit pour les renseignements d'ordonnance⁴.

 \ddagger Étude randomisée, à double insu, contrôlée par placebo. Groupe Rebif 44 mcg 3 fois/semaine (n = 184), groupe Rebif 22 mcg 3 fois/semaine (n = 189), groupe placebo (n = 187)'.

Rebif

Pour de multiples raisons.

Δ Le cas hypothétique peut ne pas représenter les résultats obtenus dans la population générale.