#### THE CANADIAN JOURNAL OF NEUROLOGICAL SCIENCES VOL. 11, NO. 1 FEB. 1984 SPECIAL FEATURES Electrophysiological Studies in Five Cases of Abetalipoproteinemia ......... N.J. Lowry, Myoglobinuria 1984 Lewis P. Rowland M.I. Taylor, W. Belknapp, W.I. Logan 60 Anatomy of the Opioid-Systems of the Brain .... Karl M. Knigge and Shirley A. Joseph Rupture of an Experimentally Induced Aneurysm in a Primate .............. F. Espinosa, Etiology of Parkinson's Disease: A Research Strategy ....... André Barbeau 24 B. Weir and T. Noseworthy Hydrocephalus and Headaches in Paget's Disease of the Skull: Hypothesis: Phylogenetic Diseases of the Nervous System ..... Harvey B. Sarnat and Martin G. Netsky 29 Complete Relief by Ventriculo-Atrial Shunt ....... ..... Chantal Hausser. Georges Elie Ouaknine and Jacques Sylvestre Friedreich's Ataxia with Dysautonomia and Labile Hypertension **ORIGINAL ARTICLES** Spinal Injuries Due to Hockey .. ...... Charles H. Tator, Chris E.U. Ekong, David W. Rowed, Michael L. Schwartz, Virginia E. Edmonds and Perry W. Cooper Reversal of Acute Experimental Cerebral Vasospasm by Calcium Antagonism 73 Fulminating Haemophilus Influenzae b Meningitis ..... D.L. Keene, A.M.R. Mackenzie, P. Humphreys, A.L. Jefferies and L.P. Ivan 78 with Verapamil ...... Richard Leblanc, William Feindel, Lucas Yamamoto, John C. Milton and Mony M. Frojmovic RESEARCH NEWS 42 An Atypical Case of Progressive Supranuclear Palsy ...... Andrew J. Gomori and Current MRC Funding and Neuroscience Research Training in Canada .... Pierre Bois 82 48 Anders A.F. Sima BOOK REVIEWS ..... 84 Serial Pattern Shift Visual Evoked Potentials in Multiple NOTES AND ANNOUNCEMENTS ..... ...... Werner J. Becker and Irene M. Richards Sclerosis ..... 53 CURRENT CONCEPTS AND CONTROVERSIES IN PARKINSON'S DISEASE Vol. 11, No. 1 (Suppl.) Feb. 1984 pages 90-238 THE CANADIAN JOURNAL OF NEUROLOGICAL SCIENCES VOL. 11, NO. 2 MAY 1984 Characteristic Alterations in Responses to Imposed Wrist Displacements in Bryce Weir ... W.C. Tatton Calcium Antagonists, Cerebral Ischemia and Vasospasm ..... Parkinsonian Rigidity and Dystonia Musculorum Deformans W. Bedingham, W.C. Verrier and R.D.G. Blair Pharmacokinetic Interactions of Antiepileptic Drugs ....... Penny S. Albright and J. Bruni Characteristics of EMG Responses to Imposed Limb Displacement in ... M.C. Verrier, W.G. Tatton and R.D.G. Blair Patients with Vascular Hemiplegia ...... 288 Lateral Asymmetries and Thalamic Components in Far-Field Somatosensory Peter Rivoira, Nelson Butters, Daniel S. Sax, Robert G. Feldman Evoked Potentials ..... The Andermann Syndrome: Agenesis of the Corpus Callosum Associated with Mental Retardation and Progressive Sensorimotor 302 Fatal Nemaline Myopathy in Infancy ...... ...... Joseph B. McMenamin. Pierre Brochu and Gaétan Jasmin Laurence E. Becker and E. Gordon Murphy 305 Ocular and Cerebral Ischemic Mechanisms in Disease of the University of Calgary Combined Neuroscience Rounds -Clinicopathological Conference Carcinoma of the Pituitary Gland with Internal Carotid Artery ..... ... R.T. Ross and Ian M. Morrow 262 Metastases to Bone .... Sensory Nerve Conduction in Chronic Uremic Patients During the ... S.T. Myles, R.D. Johns and B. Curry 310 XIX Canadian Congress of Neurological Sciences — Program and Abstracts 318 Dependence of EMG Responses Evoked by Imposed Wrist Displacements on BOOK REVIEWS .......... CALENDAR OF EVENTS ..... Pre-existing Activity in the Stretched Muscles ......... W. Bedingham and W.G. Tatton 272 THE CANADIAN JOURNAL OF NEUROLOGICAL SCIENCES VOL. 11, NO. 3 AUG. 1984 SPECIAL FEATURES Editorial Review: Therapeutic Trials in Multiple Sclerosis ... Recurrent Aseptic Meningitis Secondary to Intracranial I.H. Noseworthy. T.P. Seland and G.C. Ebers Epidermoids ......... Werner J. Becker, Gordon V. Watters, Jean-Pierre de Chadarevian and Michel Vanasse 387 363 ORIGINAL ARTICLES Oculoskeletal Myopathy with Abnormal Mitcohondria ... N.B. Rewcastle, J. Humphrey Posterior Column Dysfunction in Cervical Spondylotic 390 Brain Abscess Due to Petriellidium boydii . ..... Francois Dubeau, Louis E. Rov. Myelopathy ...... D.J. MacFadyen 365 Johanne Allard, Michel Laverdiere, Suzanne Rousseau, Fernand Duplantis, Management of Acute Subdural Hematomas from Aneurysmal Jean Boileau and Jacques Lachapelle 395 Rupture ...... Bryce Weir, Terence Myles, Moe Kahn, Falah Maroun, David Malloy, Brien Benoit, Michael McDermott Douglas Cochrane, Gerard Mohr, Gary Ferguson, Felix Durity Intermittent Treatment of Febrile Convulsions with Relapsing Polychondritis with Multifocal Neurological Abnormalities ......... E.A. Atack, G. Kraag 402 ...... Michel Vanasse, Pierre Masson, Guy Geoffroy, Nitrazepam ..... Albert Larbrisseau and Pierre C. David Les Abrégés du Congrès Québécois de la Recherche Clinique en Sciences A Method for Measurement of Arterial Concentration of Cerebral Blood Flow Tracer 405 ...... BOOK REVIEWS for Autoradiographic Experiments ... Devidas Menon, Mirko Diksic, 417 Ernst Meyer, Kazuhiro Sako and Y. Lucas Yamamoto CALENDAR OF EVENTS ..... 380 Spinal Epidural Lipomatosis: A Complication of Glucocorticoid D.L. Finestone and G.W. Armstrong THE CANADIAN JOURNAL OF NEUROLOGICAL SCIENCES VOL. 11, NO. 4 NOV. 1984 Presidential Address: The Impact of Head Trauma on Society Third Ventricle Choroid Plexus Carcinoma ..... R.W. Broad ..... Leslie Ivan Special Feature: Genetic Linkage of the Huntington's Disease Gene and P.B.R. Allan 461 Aneurysmal Bone Cyst of the Skull ..... to a DNA Marker . .. James F. Gusella 421 . N.O. Ameli Review Article: Saccadic Intrusions and K. Abbassioun, A. Azod and H. Saleh Oscillations ...... James A. Sharpe and William A. Fletcher 426 Visual Loss Secondary to a Giant Aneurysm in a Patient with Tuberous **ORIGINAL ARTICLES** ..... Mark Guttman, S. Mark Tanen and Colin D. Lambert 472 Sclerosis ..... Astrocytoma Following Scalp Radiotherapy in The University of Toronto Head Injury Treatment Study: A Prospective, Randomized Comparison of Pentobarbital and Mannitol ......... Michael L. Schwartz, Charles H. Tator, David W. Rowed, S. Ross Reid, Kotoo Meguro and David F. Andrews John C.F. MacDonald, Warren T. Blume, John P. Girvin and John C.E. Kaufman Partially Reversible Cerebral Atrophy and Functional Improvement in Recently New Intraventricular Catheter for Volume Pressure Response G. Wortzman and R. Holgate ...... John Gorecki and Fraser Saunders Measurement Pharmacological Modification of Blood-Brain Barrier Permeability CONFERENCE REPORT: Following a Cold Lesion Jensier J. Raymond, David M. Robertson, Henry B. Dinsdale and Sukriti Nag The Torsion Dystonias IN MEMORIAM: James Bert Ryal Cosgrove, M.D., F.R.C.P. (C) 481 483 Bromocriptine in the Management of End of Dose Deterioration in **BOOK REVIEWS** 485 ...... Parkinson's Disease J.D. Grimes, D.B. King, O.S. Kofman, P. Molina-Negro, A.F. Wilson and S. Bouchard CORRESPONDENCE 489 **CALENDAR OF EVENTS** Free Valproic Acid: Steady-State Pharmacokinetics in Patients with XX Canadian Congress of Neurological Sciences — Call for Abstracts ..... 493 N. Otten, K. Hall, I. Irvine-Meek. Intractable Epilepsy .. Index to Volume 11 - 1984 ...... M. Leroux. D. Budnik and S. Seshia

QUEBEC COOPERATIVE STUDY OF FRIEDREICH'S ATAXIA Vol. 11, No. 4 (Suppl.) Nov. 1984 pages 501-660



# A STEP AHEAD

In the next issue of the Canadian Journal of Neurological Sciences New information from Sandoz Research regarding



recently approved as adjunctive medication in Parkinson's Disease.

A result of original research by Sandoz.



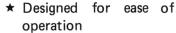
PAAB

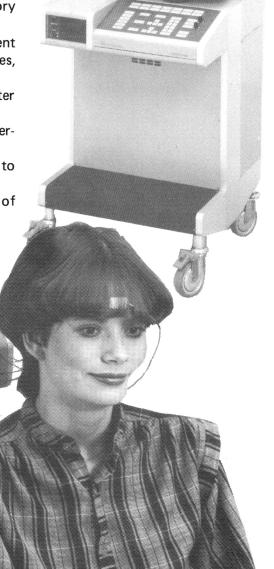
# Evomatic 8000

 completely integrated system for evoked potential testing

- ★ Galvanically isolated patient unit
- ★ One preamplifier for each electrode
- ★ Fully computerized operation
- ★ Powerful signal averaging and data processing
- ★ 60 user-defined programs stored on one disc
- ★ Color display combined with finger-touch operation
- ★ 1000 points per channel with 12-bit resolution

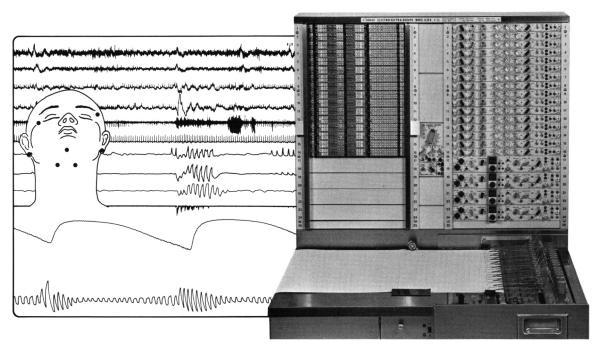
- ★ Multi-functioning stimulators for auditory, visual and somatosensory evoked
- ★ Storage of full patient journal including curves, patient data and text
- ★ Eight color plotter printouts
- ★ Built-in IEEE-488 interface
- ★ Expandable from 1 to 8 channels





# The Vigilant Sleepwatcher

# \*GRASS Series 8 EEG-Polygraph-Polysomnograph



Polysomnograph means to graph or write many things about sleep. Grass instrumentation has been doing just that beginning with Davis, Loomis et al. (1938), and continuing with Dement and Kleitman (1957). Small wonder that most sleep disorder centers use Grass Recorders as the standard to gather data. Small wonder that neurology departments are extending usage of the Grass Model 8 EEG for sleep studies. A dual purpose Model 8 EEG with Polygraph channels added can be essential for the diagnosis of most clinically defined sleep disorders at night in addition to performing routine daytime clinical EEG.

Special purpose transducers, amplifiers and other modules are being developed to simplify set-up time and operation. Custom input cabling and junctions are

available to satisfy all types of multiple patient sleep laboratory requirements.

The largest model in the series will accommodate a maximum of 25 EEG channels, or other combinations including 16 EEG + 4 DC, 18 EEG + 4 DC, 12 EEG + 6 DC are possible. With suitable sensors and transducers sleep disorder measurements can include:

EEG EOG

EMG Upper Airway Airflow

N.P.T. Oximetry

Limb Movement Breathing Sounds
Thorax and Abdominal Respiratory Effort

---and you get the bonus of traditional Grass reliability, designed for 24 hour daily service including a new maxi-size "all-channel fill once a day" inkwell.

GRASS/

GRASS INSTRUMENT COMPANY

Tel. 617-773-0002

101 Old Colony Avenue • P.O. Box 516 • Quincy, MA 02169



#### **BRIEF PRESCRIBING INFORMATION**

#### THERAPEUTIC OR PHARMACOLOGICAL CLASSIFICATION

Inhibitor of platelet adhesion and aggregation

#### INDICATIONS AND CLINICAL USE

Combined therapy with dipyridamole and ASA (Asasantine) is indicated in patients who are recovering from a myocardial infarction. The rate of re-infarction is significantly reduced by such therapy

#### CONTRAINDICATIONS

Salicylate sensitivity, active peptic ulcer.

#### WARNING

Patients should be cautioned about the possibility of additional toxic effects of ASA if they are taking "over-thecounter" ASA containing remedies, including cough and cold medications.

#### **PRECAUTIONS**

Since excessive doses of dipyridamole can produce peripheral vasodilation, it should be used with caution in patients with hypotension.

ASA should be administered cautiously to patients with asthma and other allergic conditions, a history of gastrointestinal ulcerations, bleeding tendencies, significant anemia or hypo-prothrombinemia.

Patients taking 2 to 3 g of ASA daily are at an increased risk of developing severe gastrointestinal bleeding following the ingestion of alcohol.

Since salicylates interfere with maternal and infant blood clotting and lengthen the duration of pregnancy and parturition time, they should not be administered during the last trimester of pregnancy unless the need outweighs the potential risks.

Caution is necessary when salicylates and anticoagulants are prescribed concurrently, as salicylates can depress the concentration of prothrombin in the plasma

Patients receiving concurrent salicylates and hypoglycemic therapy should be monitored closely, since reduction of the hypoglycemic drug dosage may be necessary. Although salicylates in large doses are uricosuric agents, smaller amounts may depress uric acid clearance and thus decrease the uricosuric effects of probenecid, sulfinpyrazone, oxyphenbutazone and phenylbutazone. Caution should be exercised when corticosteroids and

salicylates are used concurrently. Acute hepatitis has been reported rarely in patients with systemic lupus erythematosus and juvenile rheumatoid arthritis with plasma saticylate concentrations above 25 mg/100 mL. Patients have recovered upon cessation of therapy.

Salicylate ingestion should be restricted in patients receiving indomethacin (and perhaps other non-narcotic analgesics) for conditions such as rheumatoid arthritis. Salicylates can produce changes in thyroid function tests.

Sodium excretion produced by spironolactone may be decreased by salicylate administration.

Concomitant ingestion of salicylates and aminosalicylic acid (PAS) or aminobenzoic acid (PABA) in normal doses may lead to increased toxicity and salicylism.

Salicylates reportedly displace sulfonylureas, penicillins and methotrexate from their binding sites on plasma proteins. Salicylates also retard the renal elimination of methotrexate

## ADVERSE REACTIONS

In a trial of 2026 patients in recurrent myocardial infarction, the most common patient complaints, except for headaches, were those associated with ASA administration. In order of frequency of occurrence, these were stomach pain, headaches, heartburn, dizziness, constipation, hematemesis, bloody stoots and/or black, tarry stools, nausea and vomiting. An increased frequency of elevations of serum urea nitrogen, uric acid and creatinine were noted in the active treatment groups but increases for individual patients were small and not associated with clinical problems. There was also a slightly greater frequency of elevated systolic blood pressure readings in the active treatment groups.

When dipyridamole has been used alone, headache, dizziness, nausea, flushing, syncope or weakness and skin rash have occurred during initiation of therapy. In most cases, these tend to be minimal and transient. Gastric irritation, emesis and abdominal cramping may occur at high dosage levels. Rare cases of what appears to be an aggravation of angina pectoris have been reported, usually at the initiation of therapy. On those uncommon occasions when adverse reactions have been persistent or intolerable to the patient, withdrawal of medication has been followed promptly by cessation of the undesirable symptoms. For ASA alone the following side effects have been reported: gastrointestinal — nausea, vomiting, diarrhea, gastrointestinal bleeding and/or ulceration; ear — tinnitus, vertigo, hearing loss; hematologic — leukopenia, thrombocytopenia, purpura; dermatologic and hypersensitivity — urticaria, angioedema, pruritis, skin eruptions, asthma, anaphylaxis; miscellaneous — acute, reversible hepatotoxicity, mental confusion, drowsiness, sweating, thirst.

## SYMPTOMS AND TREATMENT OF OVERDOSAGE

Hypotension, as a result of high serum levels of dipyridamole, is likely to be of short duration if it occurs but vasopressor substances may be used if necessary. Salicylate overdosage SYMPTOMS may include rapid and deep breathing, nausea, vomiting, vertigo, tinnitus, flushing, sweating, thirst and tachycardia. In more severe cases, acid-base disturbances including respiratory alkalosis and metabolic acidosis can occur. Severe cases may show fever, hemorrhage, excitement, confusion, convulsions or coma and respiratory failure.

TREATMENT of salicylate overdosage consists of prevention and management of acid-base and fluid and electrolyte disturbances. Renal clearance is increased by increasing urine flow and by alkaline diuresis but care must be taken in this approach to not further aggravate metabolic acidosis and hypokalemia. Acidemia should be prevented by administration of adequate sodium containing fluids and

Hypoglycemia is an occasional accompaniment of salicylate overdosage and can be managed by glucose solutions. If a hemorrhagic diathesis is evident, give Vitamin K. Hemodialysis may be useful in complex acid-base disturbances particularly in the presence of abnormal renal

#### DOSAGE AND ADMINISTRATION

The recommended oral dose is 1 capsule of Asasantine, 3 times a day, in patients who have suffered a previous myocardial infarction.

#### AVAILABILITY

Asasantine is available as an opaque orange and yellow hard gelatin capsule. Each capsule contains 75 mg Persantine and 330 mg ASA.
Supplied in packages of 100 capsules

Product Monograph available on request.

REFERENCES: 1 Myocardial ischemia in man: abnormal platelet aggregation and prostaglandin generation. Mehta, J. and Mehta, P. In: Platelets and Prostaglandins in Cardiovascular Disease. Editors: Mehta, J. and Mehta, P. Futura Publishing

Co., New York, 345–358, 1981

Mehta, J. Platelets and Prostaglandins in Coronary Artery Disease-Rationale for use of platelet suppressive drugs Jama 1983; 249: 2818-2823.

Plumphrey, C. W., Chesebro, J. H. et al. In Vivo Quantitation of Platelet Deposition on Human Peripheral Arterial Bypass Grafts Using Indium — 111-labelled Platelets — Effect of Dipyridamole and Aspirin. The American Journal of Cardiology, 1983; 51: 796-801.



# **Boehringer** Ingelheim

Boehringer Ingelheim (Canada) Ltd./Ltée 977 Century Drive, Burlington, Ontario L7L 5J8

B-027-84

Intermediate Prescribing Information

# **BLioresal**®

(baclofen)

Muscle relaxant

Antispastic agent

Indications and Clinical Uses
Alleviation of signs and symptoms of spasticity
resulting from multiple sclerosis.

Spinal cord injuries and other spinal cord diseases.

Contraindications

Contraindications
Hypersensitivity to LIORESAL.
Warnings
Abrupt Drug Withdrawal: Except for serious adverse reactions, the dose should be reduced slowly when the drug is discontinued to prevent visual and auditory belluciastices continued to prevent visual and auditory. the drug is discontinued to prevent visual and auditory hallucinations, confusion, anxiety with tachycardia and sweating, insomnia, and worsening of spasticity. Impaired Renal Function: Caution is advised in these patients and reduction in dosage may be necessary. Stroke: Has not been of benefit and patients have shown poor tolerability to the drug. Pregnancy and Lactation: Not recommended as safety has not been established. High doses in rats and rabbits are associated with an increase of abdominal hernias and assification defects in the falluses.

and ossification defects in the fetuses

Precautions

Not recommended in children under 12 as safety has

Not recommended in children under 12 as safety has not been established. Because sedation may occur, caution patients regarding the operation of automobiles or dangerous machinery, activities made hazardous by decreased alertness, and use of alcohol and other CNS depressants. Use with caution in spasticity that is utilized to substain upright posture and balance in locomotion, or whenever spasticity is utilized to obtain increased function, epilepsy or history of convulsive disorders (clinical state and EEG should be monitored), peptic ulceration, severe psychiatric disorders, alderly patients with cerebrovascular disorders, and patients receiving antihypertensive therapy.

Adverse Reactions
Most common adverse reactions are transient drowsiness, dizziness, weakness and fatigue. Others

reported:
Neuropsychiatric: Headache, insomnia, euphoria rearropsychiatic. Redaderte, insomma, euphona, excitement, depression, confusion, hallucinations, paresthesia, muscle pain, tinnitus, slurred speech, coordination disorder, tremor, rigidity, dystonia, ataxia, blurred vision, nystagmus, strabismus, miosis, mydriasis, diplopia, dysarthria, epileptic seizures. Cardiovascular: Hypotension, dyspnea, palpitation, chest pain syprope

Cardiovascular: Hypotension, dysphea, palpitation, chest pain, syncope.

Gastrointestinal: Nausea, constipation, dry mouth, anorexia, taste disorder, abdominal pain, vomitling, diarrhea, and positive test for occult blood in stool.

Genitourinary: Urinary frequency, enuresis, urinary retention, dysuria, impotence, inability to ejaculate, pocturia

retention, dysuria, impotence, inability to ejaculate, nocturia, hematuria.

Other: Rash, pruritus, ankle edema, excessive perspiration, weight gain, nasal congestion. Some of the CNS and genitourinary symptoms reported may be related to the underlying disease rather than to drug therapy. The following laboratory tests have been found to be abnormal in a few patients receiving LIORESAL: SGOT, alkaline phosphatase and blood sugar (all elevated).

abnormal in a few patients receiving LIORESAL: SGOT, alkaline phosphatase and blood sugar (all elevated). 
Symptoms and Treatment of Overdosage 
Signs and Symptoms: Vomiting, muscular hypotonia, 
hypotension, drowsiness, accommodation disorders, 
coma, respiratory depression, and seizures. 
Co-administration of alcohol, diazepam, tricyclic antidepressants, etc., may aggravate the symptoms. 
Treatment: Treatment is symptomatic. In the alert 
patient, empty the stomach (induce emesis followed by 
lavage). In the obtunded patient, secure the airway with 
a culfed endotracheal tube before beginning lavage 
(do not induce emesis). 
Maintain adequate respiratory exchange; do not use 
respiratory stimulants. Muscular hypotonia may involve 
the respiratory muscles and require assisted respiration. Maintain high urinary output. Dialysis is indicated 
in severe poisoning associated with renal failure. 
Dosage and Administration 
Optimal dosage of LIORESAL requires individual titration. Start therapy at a low dosage and increase 
gradually until optimum effect is achieved (usually 
40-80 mg daily). 
The following dosage titration schedule is suggested: 
5 mg t.i.d. for 3 days 15 mg t.i.d. for 3 days 
10 mg t.i.d. for 3 days 20 mg t.i.d. for 3 days 
10 mg t.i.d. for 3 days 20 mg t.i.d. for 3 days 
10 mg t.i.d. for 3 days 20 mg t.i.d. for 3 days 
10 mg t.i.d. for 3 days 20 mg t.i.d. for 3 days 
10 mg t.i.d. for 3 days 20 mg t.i.d. for 3 days 
10 mg t.i.d. for 3 days 20 mg t.i.d. for 3 days 
10 mg t.i.d. for 3 days 20 mg t.i.d. for 3 days 
10 mg t.i.d. for 3 days 20 mg t.i.d. for 3 days 
10 mg t.i.d. for 3 days 20 mg t.i.d. for 3 days 
10 mg t.i.d. for 3 days 20 mg t.i.d. for 3 days 
10 mg t.i.d. for 3 days 20 mg t.i.d. for 3 days 
10 mg t.i.d. for 3 days 20 mg t.i.d. for 3 days 
10 mg t.i.d. for 3 days 20 mg t.i.d. for 3 days 
10 mg t.i.d. for 3 days 20 mg t.i.d. for 3 days 
10 mg t.i.d. for 3 days 20 mg t.i.d. for 3 days 
10 mg t.i.d. for 3 days 20 mg t.i.d. for 3 days 
10 mg t.i.d. for 3 days 20 mg t.i.d. for 3 days

Availability
LIORESAL (bacloten) 10 mg tablets.
White to off-white flat-faced, oval tablets with GEIGY
monogram on one side and the identification code 23
below the monogram. Fully bisected on the reverse

Available in bottles of 100 tablets Product Monograph supplied on request. References:

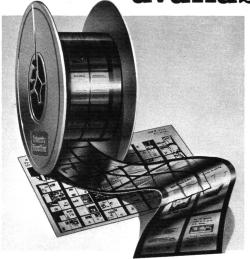
Feldman et al, Neurology, Vol. 28, No. 11 pp

1094-1098, 1978. 2. Symposia Reporter, Vol. 3, No. 2.

See outside back cover

Geig<sub>\</sub>

# This publication is available in microform.



University
Microfilms
International

University Microfilms International
reproduces this publication in microform: micro-
fiche and 16mm or 35mm film. For information
about this publication or any of the more than
13,000 titles we offer, complete and mail the
coupon to: University Microfilms International,
300 N. Zeeb Road, Ann Arbor, MI 48106. Call
us toll-free for an immediate response:
800-521-3044. Or call collect in Michigan,
Alaska and Hawaii: 313-761-4700

□ Please send information about these titles:	
Name	
Address	
City	
State	_ Zip
Phone ( )	

# The Image is Key

# Department Head Radiological Technical Services

This acknowledged leader in Health Services training has an immediate opening for a Department Head for their Radiological Technical Services Department. The successful applicant will have superior technical knowledge in one of: Sonography, Nuclear Medicine, or Medical Radiography and a sound knowledge of the other two disciplines. Above average interpersonal and technical skills are necessary to achieve the mandate of this position. Your management style would be described as flexible, respected, firm but fair, and creative. With many innovations in an ever

changing 'state of the art' environment, the development of a curriculum that challenges the students and is recognized by the medical community as one of the finest in Canada is essential.

This is an excellent opportunity to continue to grow in stature in the medical community and to help train other professionals. Explore this challenge by calling or forwarding your resume to John E. Tanton or Casey Forrest at Dunhill Personnel Consultants Ltd., #220-1155 West Georgia Street, Vancouver, B.C. V6E 3H4 or call (604) 685-0261.

**Dunhill Personnel Consultants Ltd.** 

The Canadian Journal of Neurological Science office has a new telephone number. 283-4072

# **Advertisers Index**

American Clinical Pathologist - v

Boehringer Ingelheim (Canada) Ltd/Ltee Asasantine — vi, vii, xvi

Dantec Electromedical and Scientific

Equipment Ltd.

Evomatic — xiv

Neuromatic — ix

Dunhill Personnel - xvii

# Geigy

Lioresal — OBC, xvi

Tegretol — viii, x, xi

**Grass Instrument Company** 

Neurodata - xv

Sandoz Canada Inc.,

Cafergot — IFC

Fiorinal — ii

Parlodel — iv, xii, xiii

Unimed Canada Inc.

Serc - IBC



# For the management of Vertigo

# Proven efficacy

"(Serc) is now a proven, useful therapeutic agent in the treatment of Ménière's disease, especially in the control of vertigo."

# Restores vestibular responses

"In a preliminary trial (Wilmot 1971) using objective testing of both auditory and vestibular function... the results showed statistical significance in favour of Serc."<sup>2</sup>

# Reduced severity of episodic vertigo

"... a significant improvement in favour of the drug (Serc) with regard to vertigo, tinnitus and deafness. Vertigo was the most responsive symptom."

# Well tolerated

"No adverse reactions were observed."

#### **REFERENCES:**

1 Frew, I.J.C. et al: Postgrad. Med. J.; 52:501-503, 1976. 2 Wilmot, T.J. et al: J. Laryng. Otol; 9:833-840, 1976.

## PRESCRIBING INFORMATION:

INDICATIONS: SERC may be of value in reducing the episodes of vertigo in Meniere's disease. No claim is made for the effectiveness of SERC in the symptomatic treatment of any form of vertigo other than that associated with Meniere's disease.

DOSAGE AND ADMINISTRATION: The usual adult dosage has been one to two tablets (4 mg. each) administered orally three times a day.

Recommended starting dose is two tablets three times daily. Therapy is then adjusted as needed to maintain patient response. The dosage has ranged from two tablets per day to eight tablets per day. No more than eight tablets are recommended to be taken in any one day.

SERC (betahistine hydrochloride) is not recommended for use in children. As with all drugs, SERC should be kept out of reach of children.

CONTRAINDICATIONS: Several patients with a history of peptic ulcer have experienced an exacerbation of symptoms while using SERC. Although no causual relation has been established SERC is contraindicated in the presence of peptic ulcer and in patients with a history of this condition. SERC is also contraindicated in patients with pheochromocytoma.

PRECAUTIONS: Although clinical intolerance to SERC by patients with bronchial asthma has not been demonstrated, caution should be exercised if the drug is used in these patients. USE IN PREGNANCY: The safety of SERC in pregnancy has not been established. Therefore, its use in pregnancy or lactation, or in women of childbearing age requires that its potential benefits be weighed against the possible risks.

ADVERSE REACTIONS: Occasional patients have experienced gastric upset, nausea and headache

HOW SUPPLIED: Scored tablets of 4 mg each in bottles of 100 tablets.

Full prescribing information available on request.











Treating spasticity right at the start gives him a better start on the tough road back.

Early intervention with Lioresal can significantly enhance successful rehabilitation, especially before major disabilities become permanent.

- Lioresal helps relieve spasticity resulting from spinal cord injury, multiple sclerosis or other spinal cord disorders.
- Lioresal acts primarily at the spinal level eliminating the problem of troublesome over sedation?
- Lioresal improves overall outlook for long term management.<sup>1</sup>

sooner...
means a
fuller life later.

For brief prescribing information see page xvi



GEIGY
Mississauga, Ontario
L5N 2W5