

Are you ready for electron microscopy?



ination and determination of carcinogenic behaviour, viruses, modification of tissue, changes in DNA/RNA ratios, and for other ultra-structure studies.

To meet the needs of to-day's pathologists, diagnosticians, research laboratories, and institutes, Zeiss has introduced its new generation electron microscope model EM109, with:

- Excellent price/performance ratio
- Maximum specimen protection
- Ultra-clean specimen conditions
- Compact size

These features have been achieved through exclusive and patented Zeiss developments, including automatic outside-the-vacuum photography, automatic focusing, and ion getter vacuum pumping. And of course, the EM109 features traditional Zeiss quality built to last.

For complete details on the EM109, contact the Zeiss office nearest you.

Toronto	(416) 449-4660	Guelph	(519) 824-9660
Montreal	(514) 384-3063	Halifax	(902) 422-9614
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Calgary	(403) 278-2969	Quebec	(418) 653-7391
Edmonton	(403) 487-3372	Winnipeg	(204) 253-2319

If you are involved with ultra-structures you must consider an electron microscope. Here is why.

Small scale malignant tumors of different histogenetic origin and with different prognosis and treatment normally have a similar appearance under optical microscopes and they can only be differentiated using an electron microscope.

The electron microscope is the only diagnostic analytical instrument available with the magnification capabilities required for exam-



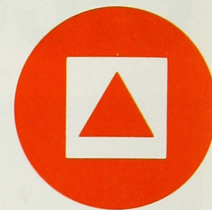
Focus
on the future

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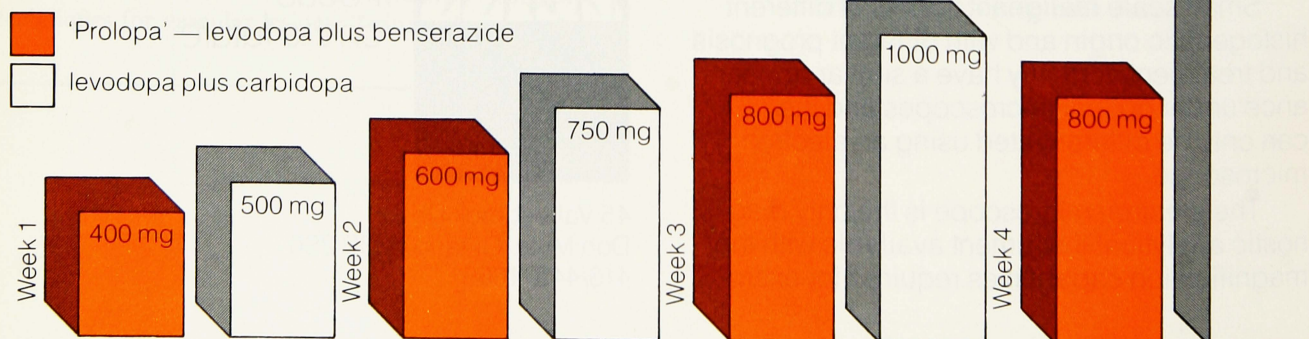
Progress for the Parkinsonian Patient

Prolopa[®]



- 1971** Roche was the first to introduce levodopa (Larodopa*), a drug which could substantially improve the life of the Parkinsonian patient.
- 1977** Continuous research and clinical trials enables Roche to introduce 'Prolopa' (levodopa plus the decarboxylase inhibitor benserazide in a 4:1 ratio). 'Prolopa' provides significant advantages for the patient and physician:
- An equal degree of improvement to that obtained with levodopa alone in the signs and symptoms of Parkinson's disease.¹
 - A marked reduction (approximately fivefold) in the daily dosage of levodopa needed to obtain a satisfactory response from patients.^{2,3}
 - A more rapid clinical response. Maximum benefit achieved in days as opposed to months with levodopa.⁴
 - Less frequent occurrences of the side effects of nausea and vomiting with 'Prolopa' than with levodopa only.⁵
 - A simpler dosage regimen.²
 - Within the range of recommended doses, less levodopa is required to reach optimal dosage for most patients than with the combination of L-dopa plus carbidopa.⁶

Levodopa daily intake based on the maximum recommended doses for a patient not receiving levodopa. (Calculated from Manufacturers' Product Monographs.)



'Prolopa': Initially, one capsule b.i.d., increasing by one capsule every three days to a maximum of eight capsules. Combination of levodopa plus carbidopa: Initially ½ tablet b.i.d., increasing by ½ tablet every three days to a maximum of five tablets.

Brief Prescribing Information

Classification

Antiparkinsonism agent

Indications

The treatment of Parkinson's syndrome with the exception of drug-induced parkinsonism.

Contraindications

Patients with a known sensitivity to levodopa or benserazide. In patients in whom sympathomimetic amines are contraindicated; in conjunction with monoamine oxidase inhibitors or within two weeks of their withdrawal. Clinical or laboratory evidence of uncompensated cardiovascular, endocrine, renal, hepatic, hematologic or pulmonary disease; in narrow angle glaucoma (may be used in wide-angle glaucoma provided that the intra-ocular pressure remains under control). History of melanoma or with suspicious undiagnosed skin lesions.

Warnings

Discontinue levodopa therapy at least twelve hours before initiation of 'Prolopa' therapy. To avoid inducing central nervous system side effects (abnormal movements) dosage of 'Prolopa' 100-25 should be increased gradually. Observe patients for signs of depression with suicidal tendencies or other serious behavioural changes. Exercise caution in patients with a history of psychotic disorders or who are receiving psychotherapeutic agents such as reserpine, pheno-thiazines or tricyclic anti-depressants.

Administer with care to patients with a history of myocardial infarction or who have atrial, nodal or ventricular arrhythmias. The safety of 'Prolopa' in patients under 18 years has not been established. In women of childbearing potential who are or who may become pregnant the anticipated benefits of the drug should be weighed against the possible hazards to mother and fetus. 'Prolopa' should not be given to nursing mothers.

Precautions

Patients with a history of convulsive disorders should be treated cautiously with 'Prolopa'. Upper gastrointestinal hemorrhage may occur in patient with a history of peptic ulcer.

Patients who improve on 'Prolopa' therapy should be advised to resume normal activities gradually as rapid mobilization may increase the risk of injury. 'Prolopa' should be administered with caution to patients on antihypertensive medication.

Adverse Reactions

Abnormal involuntary movements are the most common adverse reactions with 'Prolopa'. These are usually dose-dependent and may disappear or become tolerable after dose reduction. Periodic oscillations in performance, end-of-dose akinesia, on-off phenomenon and akinesia paradoxa constitute the most serious problems encountered after prolonged 'Prolopa' therapy. Side effects such as nausea and vomiting, which are frequently observed during the initial stages of levodopa therapy, are much less common in patients treated with 'Prolopa'. Cardiovascular disturbances such as arrhythmias and orthostatic hypotension are less frequent than in patients treated with levodopa alone. Psychiatric disturbances including mild elation, depression, anxiety, agitation, aggression, hallucinations and delusions are also encountered.

Dosage

Recommended initial dose is one capsule of 'Prolopa' 100-25 once or twice a day. This dose may be carefully increased by one capsule every third or fourth day until an optimal therapeutic effect is obtained without dyskinesias. Near the upper limits of dosage, the increments should be made slowly, at 2-4 week intervals.

Optimal dosage for most patients is 4-8 capsules of 'Prolopa' 100-25 daily (400-800 mg levodopa), divided into 4-6 doses. Most patients require no more than 6 capsules of 'Prolopa' 100-25 (600 mg levodopa), per day.

'Prolopa' 200-50 capsules are intended only for maintenance therapy once the optimal dosage has been determined using 'Prolopa' 100-25 capsules. No patient should receive more than 5-6 capsules of 'Prolopa' 200-50 daily (1000-1250 mg levodopa in combined therapy), during the first year of treatment.

Supply

'Prolopa' 100-25 capsules containing 100 mg levodopa and 25 mg benserazide and 'Prolopa' 200-50 capsules containing 200 mg levodopa and 50 mg benserazide, in bottles of 100.

References

1. Fazio, C. et al.: Treatment of Parkinson's Disease with L-dopa and Association L-dopa plus a DOPA Decarboxylase Inhibitor. *Z. Neuro.*, 202:347 (1972).
2. Barbeau, A.: Treatment of Parkinson's Disease with L-dopa and Ro 4-4602 Review and Present Status. *Advance in Neurology*, Ed. D B. Clane, Raven Press, New York, 2:173 (1973).
3. Rinne, U.K. et al.: Treatment of Parkinson's Disease with L-dopa and Decarboxylase Inhibitor. *Neuro.*, 202:1 (1972).
4. Schneider, E. et al.: Wirkungsvergleich von L-dopa und der Kombination L-dopa Decarboxylasehemmer beim Parkinson-Syndrom. *Arch Psychiat. Nervenkr.*, 217:95 (1973).
5. Steinhausl, H.: Erfahrungsbericht über die Behandlung des Parkinson-Syndroms mit dem Kombinationspräparat L-dopa Dekarboxylasehemmer (Ro-8-0576). *Wien med. Wschr.*, 123:433 (1973).
6. Manufacturers' Product Monographs.

Prolopa®

a choice after comparisons

Product monograph available upon request

®Registered Trade Mark for levodopa plus benserazide

*Registered Trade Mark for levodopa



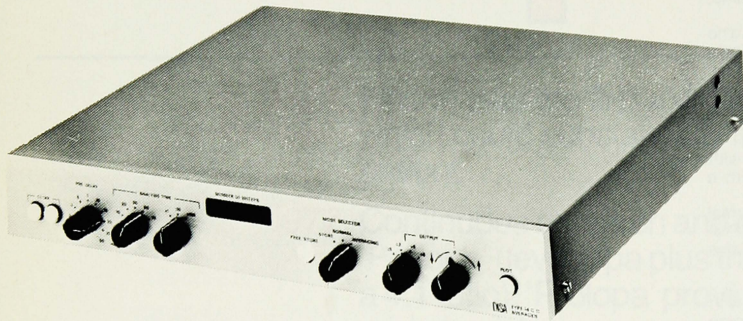
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DISA

TYPE 14G11 AVERAGER

AN ULTRA-MODERN AVERAGER
FOR IMPROVING **EMG** AND **EEG**
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The DISA 14G11 Averager is a complete self-contained unit inclusive of its own power supply and will operate with any type electromyograph and electroencephalograph.

Features

- Excellent in sensory nerve measurements
- Provides storage facility to a conventional scope
- Improves signal-to-noise ratio by up to 36 dB (64 times)
- Running averaging—no sweep number selection
- Instantaneous normalized output during process
- Output signal magnification and positioning facility during averaging
- Analysis time range from 10 msec to 7 sec
- Pre-delay from 0 to 50 msec
- Analog premixed calibration signal for correct signal evaluation
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- Digital output facility for additional computer processing/storage
- All timing is crystal-controlled to provide highly stable acquisition time.



14G11 Averager operated with 14A11 1-Channel EMG

- Adds averaging for sensory measurements
- Provides perfect storage facility
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For further information please phone or write to:

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