

Volume 27 (Supplement 1) May 2000



THE CANADIAN JOURNAL OF

# Neurological Sciences

LE JOURNAL CANADIEN DES

# Sciences Neurologiques

AN INTERNATIONAL JOURNAL / UN JOURNAL INTERNATIONAL

**SUPPLEMENT**

**CANADIAN TEMPORAL LOBE EPILEPSY  
SURGERY WORKSHOP**

*The official Journal of:* The Canadian Neurological Society, The Canadian Neurosurgical Society,  
The Canadian Society of Clinical Neurophysiologists, The Canadian Association of Child Neurology

## SUPPLEMENT 1

# Canadian Temporal Lobe Epilepsy Surgery Workshop

SUPPLEMENT EDITOR: *Warren T. Blume*

## INTRODUCTION

This first Canadian temporal lobe epilepsy surgery workshop was held at London, Ontario on November 14th and 15th, 1997.

This workshop brought together many individuals involved in the evaluation and care of patients with medically refractory temporal lobe epilepsy to examine the neurological, neurosurgical, neuropsychological and social components of this disorder. We sought to establish Canadian guidelines for: 1) identifying patients who may be candidates for temporal lobectomy, and 2) evaluation of such patients intensively in hospital. Components of this evaluation include analysis of the seizure semiology, interictal and ictal EEGs, high quality neuroimaging and neuropsychological tests of language and memory. Invasive recordings may be required in certain circumstances. The impact of the seizure disorder on the patient's personal, academic and professional life needs thorough assessment by clinical psychologists during the pre-operative assessment.

Current and future neurosurgical approaches to temporal lobectomy were reviewed. A moderate evolution in this regard is anticipated.

Outcome after surgical intervention constituted an ultimate and pivotal topic of this workshop. Not only was effectiveness of surgical intervention on seizure control considered, but measures of quality of life were reviewed. Factors in the neurological and psychological pre-operative assessments that were predictive of post-operative seizure control and life adjustment were sought.

All participants hope that publication of this workshop's proceedings will enhance awareness of temporal lobectomy as an early therapeutic option for this common and often socially disruptive seizure disorder.

*Warren T. Blume*

*John P. Girvin*

Conference Convenors

## ACKNOWLEDGEMENT

*We are grateful to the Medical Research Council of Canada, the Royal College of Physicians and Surgeons of Canada, Abbott Laboratories, Ltd., GlaxoWellcome Canada Inc., Hoechst Marion Roussel Canada Inc., Janssen-Ortho Inc., and Novartis Pharmaceuticals Canada Inc. for their support.*



THE CANADIAN JOURNAL OF

# Neurological Sciences

LE JOURNAL CANADIEN DES

# Sciences Neurologiques

**Editor/Rédacteur en chef**

Douglas W. Zochodne CALGARY, AB

**Associate Editors/Rédacteurs associés**

Laurence E. Becker TORONTO, ON

Andres M. Lozano TORONTO, ON

**Past Editors**

James A. Sharpe TORONTO, ON

Robert G. Lee CALGARY, AB

Robert T. Ross WINNIPEG, MB

(Emeritus Editor, Founding Editor)

**Editorial Board/Conseil Scientifique**

Jack P. Antel MONTREAL, QC

Timothy J. Benstead HALIFAX, NS

J. Gregory Cairncross LONDON, ON

Andrew A. Eisen VANCOUVER, BC

J. Max Findlay EDMONTON, AB

Anthony M. Hakim OTTAWA, ON

Renn Holness HALIFAX, NS

Alan C. Jackson KINGSTON, ON

Douglas Kondziolka PITTSBURGH, PA, USA

Mark J. Morrow CLEVELAND, OH, USA

Terence Myles CALGARY, AB

John H. Noseworthy ROCHESTER, MN, USA

C. Warren Olanow NEW YORK, NY, USA

David Ramsay LONDON, ON

Peter M. Richardson MONTREAL, QC

Guy Rouleau MONTREAL, QC

Shashi S. Seshia WINNIPEG, MB

Paul Steinbok VANCOUVER, BC

Jonathan A. Stoessl VANCOUVER, BC

**Book Review Editor / Rédacteur de critiques de livres**

Warren P. Mason TORONTO, ON

**News Editor/Rédacteur (nouvelles)**

John W. Norris TORONTO, ON

**Managing Director/Gérant directrice**

Sally A. Gregg CALGARY, AB

**Publications Committee/Comité de Rédaction**

G. Bryan Young LONDON, ON

Mark Hamilton CALGARY, AB

Andrew Kertesz LONDON, ON

Joseph Dooley STE-FOY, QC

**The official journal of: / La Revue officielle de:**

**The Canadian Neurological Society**

**La Société Canadienne de Neurologie**

**The Canadian Neurosurgical Society**

**La Société Canadienne de Neurochirurgie**

**The Canadian Society of Clinical Neurophysiologists**

**La Société Canadienne de Neurophysiologie Clinique**

**The Canadian Association of Child Neurology**

**L'Association Canadienne de Neurologie Pédiatrique**

The permanent secretariat for the four societies and the Canadian

Congress of Neurological Sciences is at/

Le secrétariat des quatre associations et du Congrès Canadien des

Sciences Neurologiques est situé en permanence à:

709 - 7015 MacLeod Trail SW, Calgary AB, Canada T2H 2K6,

The Canadian Journal of Neurological Sciences is published quarterly. The annual subscription rate is \$70 for members; \$77 for non-members in Canada; \$88 for USA and elsewhere. Residents, Interns, Pre- and Post-Doctoral Students \$35 per annum (members); \$38.50 per annum (non-members). Single copies \$22 each plus postage and handling. All manuscripts and communications should be sent to: Canadian Journal of Neurological Sciences, P.O. Box 5456, Station A, Calgary, AB Canada T2H 1X8. Courier to: 709 7015 MacLeod Trail SW, Calgary, AB Canada T2H 2K6. Telephone (403) 229-9575; Fax (403) 229-1661. E-mail: journal@cjns.org; Web Site: www.cjns.org

COPYRIGHT© 2000 by THE CANADIAN JOURNAL OF NEUROLOGICAL SCIENCES INC. No part of this journal may be reproduced in any form without the prior permission of The Canadian Journal of Neurological Sciences. Mailed under Publications Mail Registration number 09824. Postage paid at Calgary, Alberta. This journal is indexed by *Index Medicus*, *EMBASE Excerpta Medica* and *Current Contents* — *Clinical Practice and Life Sciences*, *Elsevier Biobase/Current Awareness in Biological Sciences*, *Biological Abstracts*, *Chemical Abstracts*, *Current Advances in Ecological Sciences*, *Dent.index*, *Industrial Medicine*, *Industrial Science Reviews*, *INIS Automind*, *Nutrition Abstracts*, *Science Citation Index*, *Weed Abstract*.

Le Journal Canadien des Sciences Neurologiques est publié trimestriellement. L'abonnement annuel est de 70 \$ pour les membres; 77 \$ pour les non-membres au Canada; 88 \$ pour les Etats Unis et ailleurs. Internes, résidents, fellows pré et post doctoral: 35 \$ par année (membres); 38,50 \$ par année (non-membres). Copie simple: 22 \$ plus affranchissement et manutention. Toutes les communications et les manuscrits doivent être adressés à Journal Canadien des Sciences Neurologiques, P.O. Box 5456, Station A, Calgary, AB Canada T2H 1X8. Par courrier: 709 7015 MacLeod Trail SW, Calgary, AB Canada T2H 2K6. Téléphone (403) 229-9575; Fax (403) 229-1661. E-mail journal@cjns.org; Web Site: www.cjns.org

DROITS D'AUTEUR© 2000: THE CANADIAN JOURNAL OF NEUROLOGICAL SCIENCES INC. Aucune partie de ce Journal ne peut être reproduite, sous quelque forme que ce soit, sans la l'autorisation du Journal Canadien des Sciences Neurologiques. Posté sous registration de poste-publications no 09824. Port payé à Calgary, Alberta. Le Journal est cité et indexé dans *Index Medicus*, *EMBASE Excerpta Medica* et *Current Contents* — *Clinical Practice et Life Sciences*, *Elsevier Biobase/Current Awareness in Biological Sciences*, *Biological Abstracts*, *Chemical Abstracts*, *Elsevier Biobase/Current Advances in Ecological Sciences*, *Dent.index*, *Industrial Medicine*, *Industrial Science Reviews*, *INIS Automind*, *Nutrition Abstracts*, *Science Citation Index*, *Weed Abstract*.

**Advertising representative/Représentant de publicité:**

Sally Gregg, Canadian Journal of Neurological Sciences

709 7015 MacLeod Trail SW, Calgary, AB Canada T2H 2K6

Tel (403) 229-9575 Fax (403) 229-1661

E-mail: journal@cjns.org

Web Site: www.cjns.org

**Printer/Imprimeur:**

Sundog Printing Limited, 1311 Ninth Avenue SW, Calgary, Alberta T3C 0H9

ISSN 0317 - 1671



THE CANADIAN JOURNAL OF

# Neurological Sciences

LE JOURNAL CANADIEN DES

# Sciences Neurologiques

## SUPPLEMENT

### Canadian Temporal Lobe Epilepsy Surgery Workshop

- S-1** Localizing and Lateralizing Value of Epileptic Symptoms in Temporal Lobe Epilepsy  
*Jean-Marc Saint-Hilaire and Mary Anne Lee*
- S-6** Epidemiology of Temporal Lobe Epilepsy  
*Samuel Wiebe*
- S-11** Temporal Lobe Epilepsy Surgery: Definition of Candidacy  
*Michael W. Jones and Frederick Andermann*
- S-14** Pediatric Candidates for Temporal Lobe Epilepsy Surgery  
*Warren T. Blume and Paul A. Hwang*
- S-20** Identification of Candidates  
*Associate Editor: W. Barrie Woodhurst*  
*Chairpersons: F. Dubeau, W. Barrie Woodhurst*
- S-22** Scalp EEG in Temporal Lobe Epilepsy Surgery  
*Mark Sadler and Richard Desbiens*
- S-29** Invasive Electrographic Recording Techniques in Temporal Lobe Epilepsy  
*F. Dubeau and Richard S. McLachlan*
- S-35** MRI Techniques: Bilateral Findings and "Normal Findings"  
*Donald H. Lee*
- S-39** Neuropsychological Assessment for Temporal Lobe Epilepsy Surgery  
*Marilyn Jones-Gotman, Michael C.S. Harnadek and Cynthia S. Kubu*
- S-44** Psychiatric Assessment of Candidates for Epilepsy Surgery  
*G. Savard and R. Manchanda*
- S-50** Investigation  
*Associate Editor: Mary Anne Lee*  
*Chairpersons: M.A. Lee, A. Olivier*
- S-53** Communication and Mental Preparation Issues for the Epilepsy Surgery Patient  
*W. Barrie Woodhurst and John P. Girvin*
- S-55** Awake Craniotomy: Controversies, Indications and Techniques in the Surgical Treatment of Temporal Lobe Epilepsy  
*Ramesh L. Sahjpaul*
- S-64** Anesthesia for Temporal Lobe Epilepsy Surgery  
*Ian A. Herrick and Adrian W. Gelb*
- S-68** Transcortical Selective Amygdalohippocampectomy in Temporal Lobe Epilepsy  
*André Olivier*
- S-77** Surgical Pitfalls, Their Consequences, Transient Complications  
*Falah Maroun and John P. Girvin*
- S-79** Stereotactic Surgery for Temporal Lobe Epilepsy  
*Andrew G. Parrent and Andres M. Lozano*
- S-85** Intraoperative Electrocorticography in Temporal Lobe Epilepsy Surgery  
*David B. MacDonald and Neelan Pillay*
- S-92** Surgery  
*Associate Editor: Mark Sadler*  
*Chairpersons: M. Jones, M. Sadler*
- S-97** Seizure Control as an Indicator of Therapeutic Usefulness  
*Samuel Wiebe*
- S-106** Management of Antiepileptic Drugs following Epilepsy Surgery: A Review  
*Richard S. McLachlan and John Maher*
- S-111** Measuring Quality of Life in Epilepsy Surgery Patients  
*Samuel Wiebe and Paul A. Derry*
- S-116** Psychological Adjustment to Success and to Failure following Epilepsy Surgery  
*Paul A. Derry and Samuel Wiebe*
- S-120** Follow-up  
*Associate Editors: Andres Lozano, David MacDonald*  
*Chairpersons: Andres Lozano, David MacDonald*
- S-124** Summary  
*Frederick Andermann*

Visit Our Web Site At:  
[www.canjneurosci.org](http://www.canjneurosci.org)