



JOINT SECTION ON TUMORS

Ronald E. Warnick, MD, Editor

Spring 1998

Joint Section on Tumors Officers

CHAIRMAN

Mark Bernstein, MD

PAST-CHAIRMAN

William Chandler, MD

SECRETARY-TREASURER

Joseph Piepmeier, MD

ADVISORY BOARD

Mitchel Berger, MD
Dennis Bullard, MD
Paul Kornblith, MD
Timothy Mapstone, MD
Robert Morantz, MD
Raymond Sawaya, MD
Laligam Sekhar, MD
Michael Walker, MD

COMMITTEE CHAIRS

Awards

Peter Black, MD
Edward Laws, MD

Bylaws

Jack Rock, MD

Education

William Couldwell, MD

International

Armando Basso, MD
Nicholas de Tribolet, MD
Andrew Kaye, MD
Kintomo Takakura, MD
David Thomas, MD

Membership

Michael McDermott, MD

Membership Services

Anthony Asher, MD

Newsletter

Ronald Warnick, MD

Nominating

William Chandler, MD

Program

Kevin Lillehei, MD
Jack Rock, MD
James Rutka, MD
Ronald Warnick, MD

Research

Roberta Glick, MD

Task Forces

Jack Rock, MD
Mark L. Rosenblum, MD

Young Neurosurgeons

Nelson Oyesiku, MD

CHAIRMAN'S ADDRESS

Mark Bernstein, MD



The Joint Tumor Section is very excited about its contribution to the Scientific Program of the AANS Annual Meeting in Philadelphia—both in quantity and quality. The Wednesday afternoon session will feature talks on tumor vaccines and anti-angiogenic approaches to glioma therapy including a presentation by Judah Folkman. Thanks to Kevin Lillehei for organizing this. We will also be presenting five awards. On Thursday morning, Special Course III entitled “Surgical Neuro-Oncology—How I Do It” will include a variety of talks of great practical interest to everyone involved in surgical neuro-oncology. Then, immediately after the AANS Meeting, our Third

Satellite Symposium will feature sessions on tumor promoters and suppressors, meningiomas, angiogenesis and invasion, and futuristic therapies, as well as a special lecture on pituitary tumors by AANS President Ed Laws. We hope you all plan to attend this Symposium - the keynote speakers are leaders in their fields and the number and quality of abstracts submitted is terrific! Thanks to Jim Rutka for organizing the Special Course and doing most of the work on the Satellite Symposium as well.

The Glioma Outcomes (GO) Project, sponsored by Rhone-Poulenc-Rorer, is well underway with over 30 centers registered. Many of you are contributing to and will benefit from this project. It features an instrument designed to facilitate glioma care, including comprehensive quality of life information. The Section has also been working on the development of Practice Parameters for low-grade gliomas and has just started the same process for brain metastases.

The Radiation Therapy Oncology Group (RTOG) is actively seeking neurosurgical input in developing multi-center clinical trials which the RTOG will consider for funding and support. Any neurosurgeon who has an idea should contact myself or Dennis Bullard, who chairs the Neurosurgery Committee of the RTOG. This is an exciting opportunity for neurosurgery to generate and carry out clinical trials.

We also have a number of interesting projects underway in essentially all of our committees and I thank all the Committee Chairpersons for all their excellent work.

Thanks to all Section Members for your ongoing support of the Joint Section on Tumors. Please let us know how we can better serve you. If you ever have any suggestions or inquiries, please feel free to call me or any of the Committee Chairpersons. I look forward to seeing many of you in Philadelphia in April.

In This Issue...

Joint Section Committee Reports	2	Satellite Symposium	8
Abstract Article	3	Minutes of the Executive Council Meeting	9
In Brief... ..	5	Neuro-Oncology research Opportunities	10
Tumor-Related Highlights of the AANS Annual Meeting	6	Internet Sites Pertaining to Neuro-Oncology	10
		Neuro-Oncology Funding Opportunities	10

JOINT SECTION COMMITTEE REPORTS

Secretary-Treasurer's Report

Joseph Piepmeier, MD

The Tumor Section remains in sound financial shape with assets of over \$218,000. We have taken \$50,000 of this account and added to an investment portfolio managed by the AANS. This investment historically provides a higher yield and may offer the opportunity for the Tumor Section to generate funds for selected projects. While the investments are grouped, we are able to maintain control over all funds from the Tumor Section.

Awards Committee Report

Peter Black, MD

Edward Laws, Jr., MD

Awards for the 1998 Annual Meeting:

Farber Award

Mahaley Clinical Research Award

Preuss Resident Award

Young Investigator Award

Dr. Mark Israel

Dr. Prem Pillay

Dr. Matthias Feldkamp

Dr. Michael Hsiao

Membership Committee Report

Michael McDermott, MD

This year we have approximately 30 new applications for review at the Executive Council Meeting in Philadelphia. A membership drive will be carried out through the mail coordinated by the Chicago office. At the AANS Annual Meeting, the Joint Section on Tumors will have a table to promote membership in our Section.

Membership Services Committee Report

Anthony Asher, MD

We are developing a guide to brain tumor services that will most likely be posted on the Tumor Section's web page. Additionally, a periodic literature review in Neuro-Oncology is being designed for the membership and we hope to have this available later this year.

Newsletter Committee Report

Ronald Warnick, MD

Several new features for the Newsletter will be presented at the upcoming Executive Council Meeting in Philadelphia. In addition, the cost and scope of our current Newsletter mailing list will be discussed.

Program Committee Report

Jack Rock, MD

James Rutka, MD

The Third Biennial Joint Section Satellite Symposium will be held in Philadelphia at the Wyndham Franklin Hotel from Thursday April 30, 1998 to Friday May 1, 1998. Over 100 abstracts were received and a stellar cast of speakers have agreed to participate.

The Joint Section on Tumors Scientific Program for the 1998 CNS Meeting in Seattle has now been finalized:

October 5: Monday at 2:00 PM

"Supratentorial Meningioma: Difficult problems."

2:00-2:20 Jaques Brotchi—The Venous System as it Relates to Meningioma Surgery

2:20-3:00 George Ojemann—Recurrent and En Plaque Meningioma

October 6: Tuesday at 2:00 PM

"Epidermoids, Dermoids, and Arachnoid Cysts"

2:00-2:20 Don Long—Epidermoids and Dermoids

2:20-3:00 Felix Umansky—Arachnoid Cysts

Each session will include a 40-minute period for oral poster presentations.

3:30-3:50—Break with exhibitors (both days)

3:50-5:30—Open paper session (both days)

All questions about the CNS program should be directed to Jack Rock, MD, phone (313)-876-1094, fax (313)-876-7139.

Task Forces Committee Report

Jack Rock, MD

Mark Rosenblum, MD

The Guidelines Task Force will be starting an effort to review the topic: "Treatment of Solitary Metastasis to the Brain." The review team consists of Jack Rock, Raymond Sawaya, Mark Bernstein, Stephen Haines, Tom Mikkelsen (neurology), Jay Loeffler (radiation oncology), and Larry Recht (neurology). We plan to have a preliminary meeting on Sunday April 26, 1998 from 3 to 5 p.m. in Philadelphia. The finished product is expected by April, 1999.

The AANS Outcomes group will meet on Saturday April 25, 1998 in Philadelphia and suggestions for potential topics are being solicited at this time. The GO Project is actively accruing patients and a status report will be presented at the Executive Council Meeting at the AANS.

SECTION AWARDS FROM THE 1997 CNS MEETING



Preuss Award winner Walter Jean and section chairman Mark Bernstein.

Preuss Award

IL-12-based Tumor Cell Vaccine for the Treatment of Gliomas

Walter C. Jean, Stephen R. Spellman, Margaret Wallenfriedman, Walter A. Hall, Walter C. Low

Investigations in immunotherapy against gliomas have recently been focused on transfection of lymphokine genes to produce tumor cell vaccines. However, the continuous administration of the lymphokine itself, along with injections of irradiated tumor cells used for antigen presentation, may circumvent the impracticalities for lymphokine gene transfection. The lymphokine IL-12 is thought to stimulate cellular immunity against various tumors. We postulated that peripheral infusion of IL-12 along with irradiated tumor cells can sufficiently mount an immunological defense against gliomas.

Ten million (10×10^6) 9L gliosarcoma cells were injected into the flanks of syngeneic Fischer 344 rats. At the same time, osmotic minipumps (Alzet) were implanted in the contralateral flank, delivering mouse IL-12 at various doses ($n=5$ per group) for 28 days. Irradiated 9L cells (6000 rads ^{137}Cs) were injected subcutaneously on days 0, 3, 7, 14 and 21. Tumor volumes were measured by a blinded observer. At day 60, when the first animal in the control group died, the growth curves were significantly different among the groups (ANOVA $F=23.41$ $p<0.0001$). Post-hoc comparisons revealed that the control group had significantly larger tumors than any of the treatment groups ($p<0.05$ for all pair-wise comparisons). Amongst the animals that received 1 mg/day of IL-12, 40% did not develop any measurable tumors at all. All treated animals had complete regression of their tumors, but their tumor growth and peak tumor sizes (1003 ± 617 mm³, 1348 ± 696 mm³, 3331 ± 1140 mm³ for 1, 10, 50 ng/d respectively) reflected an inverse dose response.

Two lines of evidence suggest that the observed response is immunologically mediated. When re-challenged with 9L flank tumors, animals previously treated with IL-12 did not develop

measurable tumors, whereas control animals developed tumors by day 9. Delayed-type hypersensitivity was measured by injecting 1 million (1×10^6) irradiated 9L tumor cells into the right pinna of IL-12 treated animals cured of flank tumors. The subsequent swelling of the pinna was compared to that in the left, into which saline was injected. Measured at 24 hrs, the average inflammatory response was 14.98 ± 2.5 (10^{-4} inches \pm SEM) in treated animals versus 4.56 ± 1.1 in controls ($p<0.005$). These results suggest that continuous infusion of IL-12 in combination with irradiated tumor cell injections can be a successful immunological treatment against gliomas.



Young Investigator Award winner Ian Pollack and Joseph Piepmeier.

Young Investigator Award

Molecular Markers of Prognosis in Pediatric Malignant Gliomas

Ian Pollack, Markus Bredel, Ronald Hamilton, Sydney Finkelstein

Introduction: The prognosis for children with high-grade gliomas remains somewhat unpredictable. Whereas prolonged disease control is sometimes achieved after surgery, radiotherapy, and chemotherapy, most patients exhibit rapid disease progression.

Methods: In an effort to refine prognostic assessments and therapeutic stratification, we examined the association between a series of biological markers and outcome in an institutional cohort of 31 children with non-brainstem high-grade gliomas. A topographic genotyping technique was used to identify p53 mutations and deletions of various tumor suppressor genes (e.g., Rb and APC), and immunohistochemical methods were used to assess MIB-1 proliferation index and growth factor (e.g., basic FGF) and growth factor receptor (e.g., EGFR) expression.

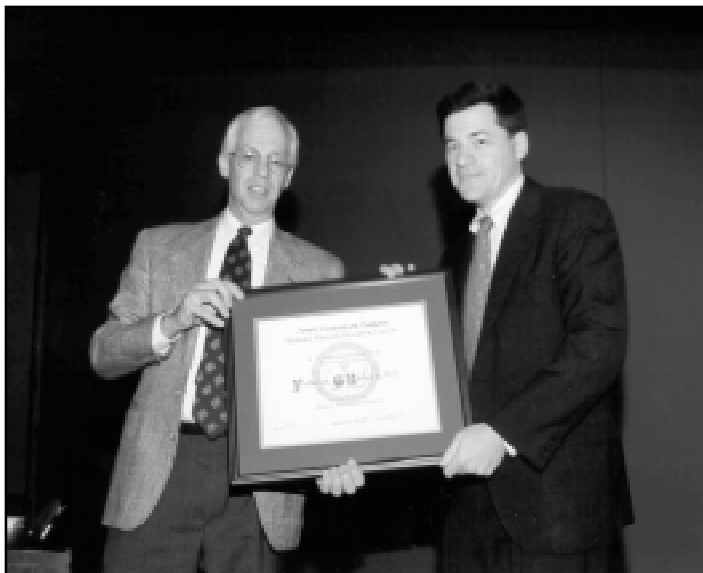
Results: These studies demonstrated a striking association between p53-mutations and a poor progression-free survival (PFS), which was

continued on page 4

SECTION AWARDS FROM THE 1997 CNS MEETING (continued from page 3)

independent of tumor histology ($p = 0.04$, log rank test). Median PFS was 6 months in the 11 patients with p53-mutated tumors versus 16 months among those without mutations. MIB-1 proliferation index was also strongly associated with survival. Median PFS was 6 months in 16 children with MIB-1 indices > 11 compared to more than 48 months in the low MIB-1 group ($p = 0.014$). Finally, basic FGF immunoreactivity was also strongly associated with outcome. Median PFS was 6 months in the 16 tumors with bFGF overexpression vs. more than 48 months in the tumors with low or absent bFGF expression ($p = 0.006$).

Discussion and Conclusions: Taken together, these results indicate that biological markers may be useful in supplementing routine histological criteria for refining outcome predictions and as a basis for therapeutic stratification in children with malignant gliomas. Further evaluation of this hypothesis in a multi-institutional cohort of patients is in progress.



Mahaley Award winner Frederick Barker with William Chandler.

Mahaley Award

Age, Extent of Resection, and Survival in Patients with Glioblastoma Multiforme

Frederick G. Barker, Susan M. Chang, Philip H. Gutin, Michael W. McDermott, Charles B. Wilson, Michael D. Prados

Introduction: Extent of resection has been proposed as an important prognostic factor for survival in patients with glioblastoma multiforme (GM). Some groups have reported that extensive resections are not associated with significantly longer survival in older patients. We performed a multivariate analysis to determine the value of extent of resection as a prognostic factor for GM patients in relation to age.

Methods: 301 adult GM patients were treated using 2 prospective clinical protocols (one with and one without adjuvant nitrosourea chemotherapy). Age, extent of resection, and KPS were examined as

prognostic factors for survival using multivariate Cox analysis stratified by protocol. Novel statistical modeling methods allowed determination of the shape of the function relating the prognostic value of extensive resection and patient age (kernel-estimated conditional hazard ratio for extent of resection given specific patient ages, with bootstrapped pointwise confidence bands).

Results: 11% of 301 patients had gross total resections, 73% had subtotal resections, and 16% had biopsies. Extent of resection was an important prognostic factor for survival both in univariate analysis ($p < 0.001$) and in a multivariate model adjusted for age, KPS, and adjuvant chemotherapy use ($p < 0.001$). Patients were divided by age into three groups (16-39, 40-59, and 60+ yr; $N=47, 136,$ and 116 pts). Extensive resections were slightly less likely in older patients ($p = 0.03$). After adjustment for KPS, hazard ratios for more extensive resections in young, middle, and old patients were 0.30, 0.62, and 0.70 respectively, suggesting lesser efficacy for extensive resections in middle-aged and older patients. The kernel estimator model provides an estimate of the value of more extensive resection as a survival predictor for specific patient ages. This model showed that the prognostic value of extensive resection was roughly constant for patients aged 50 to 70 but increased rapidly for patients younger than 50. The prognostic value of higher KPS scores was constant with patient age.

Conclusions: The prognostic value of extensive resection for GM was highest for younger patients, trending downward between ages 30 and 50, but showed no downward trend for patients aged between 50 and 70. Extensive resection seems to have comparable value in middle-aged and in older patients and greater apparent value in patients younger than 50. Potential biological correlates of this clinical observation could include a lesser tendency of GMs in the youngest patients to infiltrate surrounding, grossly normal brain.

Newsletter items may be sent to:

Ronald E. Warnick, MD
Department of Neurosurgery
University of Cincinnati Medical Center
231 Bethesda Avenue
Cincinnati, OH 45267-0515

Phone: (513)-558-3179
Fax: (513)-558-0886
Email: nsgymd@aol.com

IN BRIEF...

American Brain Tumor Association

Translational Research Grant

To commemorate its 25 years of service to the brain tumor community, the American Brain Tumor Association is offering a one-year \$50,000 Translational Research Grant, in addition to awarding basic research fellowships.

In this context, translational is defined as preclinical research intended to evaluate the therapeutic potential of recent discoveries in the basic mechanisms of either brain tumor pathogenesis or experimental therapeutics. Human studies are excluded. It is the Association's hope and intent that this grant will facilitate promising work from bench to bedside.

The award winner will be announced at the Association's 25th Anniversary Banquet on March 28, 1998. Dr. Victor Levin, Chairman of Neuro-Oncology at MD Anderson Cancer Center, will make the award presentation and Patrick Kelly, MD, Chairman of Neurosurgery at New York University Medical Center, will speak about "The Computer as an Instrument of Hyperchange."

For additional information about the Anniversary activities, please contact the Association office at (847)-827-9910 or info@abta.org.

National Brain Tumor Foundation

Research Grant

The National Brain Tumor Foundation provided funding to Roberta Glick, MD, for her study entitled: "Immuno-Gene Therapy: Treatment of Intracerebral Tumors with Allogeneic Fibroblasts Genetically Engineered to Secrete Cytokines."

Medical Advice Nurse

Providing complete and accurate information to the over 700 patient calls NBTF receives each month has been one of the goals of the National Brain Tumor Foundation. In order to better respond to patient questions, NBTF is now offering special access to a neuroscience nurse. Mary Lovely, RN, PhD, is working part-time answering calls and advising patients and care-givers on their questions about brain tumor therapy. Dr. Lovely, a Postdoctoral Fellow at the University of California, San Francisco and member of the Patient Services Advisory Committee, will also be leading a workshop on "Fatigue in Brain Tumor Patients" at the NBTF March conference. This position is generously supported by a grant from the Tim and Tom Gullikson Foundation.

Teleconference on Seizures

Understanding and treating seizures is a major issue for many brain tumor patients and their loved ones. In order to address this need, NBTF and Cancer Care, Inc. are sponsoring a spring teleconference entitled, "Understanding Seizures - Management and Treatment" presented by Timothy Cloughesy, MD. Dr. Cloughesy, Director of the Neuro-Oncology Program at the UCLA School of Medicine, and listed as one of the best doctors in Los Angeles by *Los Angeles Magazine*, will present useful information on dealing with seizures. The teleconference will take place on Wednesday, May 20th, 1998 from 12:00-1:00 ET (9:00-10:00 PT). For more information please call NBTF at 1-800-934-CURE (2873) or access our web site <http://www.brainumor.org>.

North American Brain Tumor Coalition

The North American Brain Tumor Coalition (NABTC) is a network of eight charitable organizations dedicated to eradicating brain tumors. The member organizations of the Coalition have awarded over \$18 million in private funds for research related to brain tumors. The Coalition also represents the interests of its constituency by raising public awareness of brain tumors and by advocating for increased research funding, access to specialized care and other issues affecting brain tumor patients.

Since its inception in 1991, the Coalition has established a strong public policy voice on behalf of children and adults with brain tumors. NABTC representatives have testified before Congress in favor of increased biomedical research funding and ready access to new drugs and therapies. The Coalition also participates in meetings on biomedical research and health care delivery at the Food and Drug Administration (FDA), the National Institutes of Health (NIH) and other federal agencies, and collaborates with other organizations representing patients with serious and life-threatening illnesses.

Member organizations include:

Acoustic Neuroma Association of Canada
Brain Tumor Foundation of Canada
National Brain Tumor Foundation
The Brain Tumor Society

American Brain Tumor Association
Children's Brain Tumor Foundation
Pediatric Brain Tumor Foundation of the United States
The Preuss Foundation

Tumor-Related Highlights of the AANS Annual Meeting

Sunday, April 25

Practical Clinics

015 Lateral Approaches to Tumors and Aneurysms: Application of the Transcondylar, Far Lateral and Extreme Lateral Approaches

Director: Jeffrey Keller, Harry R. Van Loveren

Faculty: Mario Zuccarello, Michael Chicoine, Khaled Aziz, Maurali Guthikonda, Troy Payner, Michael Link

016 Practical and Technical Aspects of Transsphenoidal and Transoral Surgery

Director: William Chandler

Faculty: Mary Louise Hlavin, Hae-Dong Jho

023 Anterior and Anterolateral Approaches to Tumors and Aneurysms

Director: Laligam Sekhar

Faculty: Donald Wright, Akio Morita, Ann Marie Yost, Ghassan Bejjani, Zachary Levine, Russell Buchanan

Monday, April 27

Breakfast Seminars

111 Management of Spinal Cord Tumors

Moderator: Paul Cooper

Panelists: Fred Epstein, Jacques Brotchi, Michael Ebersold, Ian McCutcheon

117 Low-Grade Gliomas: Current Treatment and Controversies

Moderator: Mitchel Berger

Panelists: Michael Salcman, James Rutka, Kevin Judy, Jeffrey Wisoff

Plenary Session I

9:45–11:39 AM

706 Gamma Knife Radiosurgery of Cavernous Sinus Meningiomas: Results of a Two-Institution, 10-Year Experience. Christopher M. Duma, L. Dade Lunsford, Douglas Kondziolka, Brian R. Subach, Deane B. Jacques. Discussant: Laligam Sekhar

Scientific Session I

2:45–5:15 PM

716 Prolongation of Survival in Mice With Intracerebral Glioma Treated with Semi-Allogeneic/Syngeneic Fibroblasts. Roberta P. Glick, Terry Lichtor, Edwin DeZoeten, Edward P. Cohen

Scientific Session II

2:45–5:15 PM

720 Genetically Engineered Cytotoxic T Cells Targeted Against Angiogenesis: A Novel Anti-Tumor Strategy. Zoher Ghogawala, Richard C. Mulligan. Discussant: Henry Brem

721 Results of Phase I Trials of 131 I-Labeled Anti-Tenascin Monoclonal Antibody Injected via Surgically-Created Resection Cavities in Patients with Recurrent Malignant Brain Tumors. John H. Sampson, Allan H. Friedman, Herbert E. Fuchs, Darell D. Bigner, Henry S. Friedman. Discussant: Ian Pollack

725 Development and Impact of a Craniotomy for Tumor Critical Pathway. Gregory P. Licholai, Peter McL Black, Sharon P. Kleefield. Discussant: Stephen Haines

Scientific Session VII

2:45–5:15 PM

727 Results of Transsphenoidal Microsurgery For Growth Hormone-Secreting Pituitary Adenomas. Aviva Abosch, J. Blake Tyrrell, Lisa Hannegan, Kathleen Lamborn, Charles B. Wilson. Discussant: Edward R. Laws, Jr.

729 Endocrine-Inactive Pituitary Adenomas: Clinicopathologic Features and Long-Term Outcome Following Transsphenoidal Resection. Gordon Tang, Ming-Ming Ning, Marielle H. Nyugen, Brooke Swearingen, Nicholas T. Zervas. Discussant: Alex Landholt

732 Results of Linear Accelerator-Based Radiosurgery for Intracranial Meningiomas. Peter McL. Black, Rodolfo Hakm, Eben Alexander, III, Jay S. Loeffler, Dennis Shrieve. Discussant: Robert Ojemann

736 Failed Radiosurgery and the Role of Microsurgery for the Acoustic Neuroma. L. Dade Lunsford

Scientific Session IV

2:45–5:15 PM

737 Hearing Preservation in 75 Acoustic Neuroma Surgeries. Catalino D. Dureza, Takamori Fukushima, Moises Arriaga. Discussant: Albert Rhoton, Jr.

739 Failed Microsurgery and the Role of Radiosurgery For Acoustic Neuroma. Bruce E. Pollack, L. Dade Lunsford, Douglas Kondziolka, Brent C. Clyde, John C. Flickinger. Discussant: Steven Giannotta

Tuesday, April 28

Breakfast Seminars

210 Contemporary Evaluation and Management of Primary and Metastatic Spinal Column Neoplasms

Moderator: Arnold Menezes

Panelists: Narayan Sundaresan, Martin Camins, Ziya Gokaslan, Richard Perrin

216 Functional Pituitary Tumors

Moderator: Martin Weiss

Panelists: William Chandler, Ivan Ciric, Ian McCutcheon, Douglas Kondziolka

218 Advanced Techniques in the Treatment of Pituitary Tumors

Moderator: Jules Hardy

Panelists: Alex Landolt, Kalmon Post, L. Dade Lunsford, Zvi Ram

Plenary Session II

9:45–11:20 AM

747 Long-Term Outcomes After Acoustic Tumor Radiosurgery. Douglas Kondziolka, L. Dade Lunsford, John Flickinger, Ann Maitz, David Bissonette. Discussant: Madjid Samii

749 Physiological Characterization of Malignant Oligodendrogliomas Responding to PCV-Chemotherapy. Peter Warnke, Ansgar Berlis, Christoph Ostertag. Discussant: Mark Rosenblum.

Wednesday, April 29

Breakfast Seminars

315 Gene Therapy of CNS Neoplasms

Moderator: Mark Rosenblum

Panelists: Corey Raffel, Mitchel Berger, Michael L.J. Apuzzo, Zvi Ram

320 Consultant's Corner: Tumor

Moderator: William F. Chandler

Panelists: Rudolph Fahlbusch, Christer Lindquist, Keith Black, Laligam Sekhar

Scientific Session V

9:45–11:15 AM

755 Do Outcomes After Radiosurgery Differ for Different Metastatic Brain Tumors? Katrina Firlik, Yoshimasa Mori, Young Soo Kim, Douglas Kondziolka, John Flickinger. Discussant: Raymond Sawaya

757 Craniotomy for Tumor in an MRI Unit. Peter McL. Black, Eben Alexander III, Claudia Martin, Thomas Moriarty, Richard Schwartz. Discussant: Patrick Kelly

Scientific Session VI

9:45–11:15 AM

761 Motor Evoked Potential Monitoring For Spinal Cord Tumor Surgery. Karl Kothbauer, Vedran Deletis, Fred J. Epstein. Discussant: David Cooper.

763 Intraoperative Ultrasound Localization of Pituitary Adenomas in Patients with Cushing's Disease and Negative Pituitary MR Imaging. Joe Watson, Thomas Shawtier, John Doppman, Edward Oldfield. Discussant: William Chandler.

Scientific Session VII

766 Value of Adjunctive Radiation Boost Therapies in the Treatment of Malignant Glioma. Matthew Quigley, Alexander Anetakis, Amr Elrifai, Shalmon Kalnicki. Discussant: Philip Gutin.

767 Reoperation For Recurrent Acoustic Neuromas. Gordon Tang, Steven L. Giannotta. Discussant: David Andrews.

769 Intraoperative Localization of Brain Tumors and Surrounding Functional Cortex with Infrared Imaging. Alexander Gorbach, John Heiss, Conrad Kufta, Edward Oldfield. Discussant: Michael L.J. Apuzzo.

Scientific Session VIII

9:45–11:15 AM

770 Role of Vascular Endothelial Growth Factor in the Pathogenesis of Venous Thromboembolic Disease in Patients with Brain Tumors. Gregory Licholai, Patrick Wen, Rona Carroll, Peter McL. Black. Discussant: Raymond Sawaya.

773 A Proposed Grading System To Predict Full Resection in Cranial Base Meningiomas. Zachary T. Levine, Russell I. Buchanan, Laligam N. Sekhar, Charles L. Rosen, Donald C. Wright. Discussant: Chandranath Sen.

Tumor Section Session

Special Symposium

2:45–3:45 PM

Innovative Strategies for Treatment of Gliomas

Moderator: Kevin O. Lillehei

Advances in Immunotherapy/Tumor Vaccines – Drew Pardoll

Anti-Angiogenic Approaches to Glioma Therapy – Judah Folkmann

Scientific Session

Preuss Resident Award

850 Expression of Growth Factor Receptors in Glioblastoma Multiforme Cell Lines and Tumor Specimens Results in Ras Activation and Ras-Dependent Tumor Proliferation. Matthias M. Feldkamp

Mahaley Clinical Research Award

851 Endoscopic Transsphenoidal Resection of Pituitary Tumors. Prem Pillay, D. Sethi

Young Investigator Award

852 Mechanisms of p53 Induced "Bystander Effect" in Tumor Suppression: I. Evidence of Angiogenesis Inhibition in Vivo After Intratumoral Injections of p53/Cationic Liposome Complexes. Michael Hsiao, Victor C. Tse, Linnea Kim, Gerald D. Silverberg

Photos courtesy of the Philadelphia Convention and Visitors Bureau.

853 Aggressive Surgery and Focal Radiation in the Management of Meningiomas of the Skull Base: Preservation of Function with Maintenance of Local Control. Peter McL. Black, Alan T. Villavicencio, Jay S. Loeffler

854 Effects of Combined GM-CSF and IL-2 in the Treatment of Rat 9L Glioma. Walter Jean, Stephen Spellman, Florian Merkle, Christine Flores, Lance Dela Barre

855 Trka Induction In Glioma Exerts Unique Effects of Tyrosine Kinase Modulation By Down Regulating Metalloproteinases And Decreasing Invasion. N. Scott Litofsky, Nilesch Kotecha, Mahesh Lachyanker, Alonzo Ross, Lawrence Recht.

856 Gene Rearrangements in Malignant Gliomas. John Cowell, Olga Chernova, David Miller, Gene Barnett

The Farber Lecture

5:10–5:30 PM

A Molecular Basis For The "Intrinsic Radioresistance" of Astrocytic Tumors. Mark Israel

Business Meeting

5:30–6 PM

Thursday, April 29

Breakfast Seminars

404 Pediatric Brain Tumors

Moderator: Harold Hoffman

Panelists: Karin Muraszko, Ian Pollack, Maurice Choux

411 Cranial Nerve Preservation in Acoustic Tumor Surgery

Moderator: Peter Jannetta

Panelists: Madjid Samii, Kalmon Post, Stephen Haines, William Buchhiet

412 Tumors of the Clivus and Foramen Magnum

Moderator: Jon Robertson

Panelists: Ossama Al-Mefty, Chandranath Sen, Jeffrey Bruce, Paul Chapman

413 Current and Novel Treatment of Malignant Gliomas

Moderator: Henry Brem

Panelists: Edward Oldfield, Andrew Kaye, Ivan Ciric, Douglas Laske

414 Third Ventricular Tumors

Moderator: Michael L.J. Apuzzo

Panelists: Ernst Grote, Alan Cohen, Gazi Yasagril, Joao Lobo Antunes

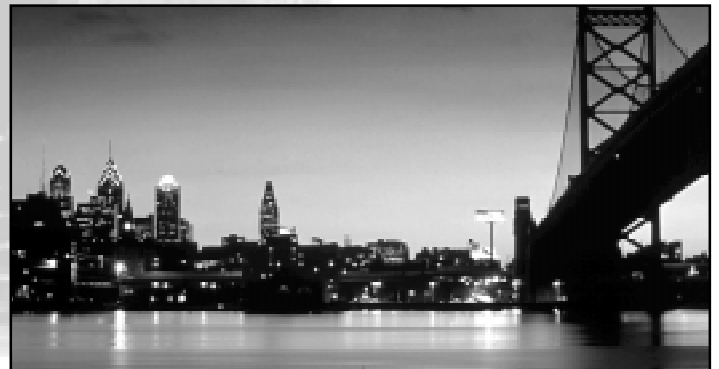
Special Course III

9:45–NOON

Surgical Neuro-Oncology – How I Do It

Moderator: James T. Rutka

Panelists: Mark Bernstein, Patrick Kelly, Joseph Piepmeier, Ossama Al-Mefty, Edward Oldfield, Raymond Sawaya



Satellite Symposium

AANS/CNS Section on Tumor Satellite Symposium

Jointly sponsored by The American Association of Neurological Surgeons

April 30-May 1, 1998

The Third Biennial Tumor Satellite Symposium is scheduled to take place in conjunction with The American Association of Neurological Surgeons meeting in Philadelphia, PA April 30-May 1, 1998. The symposium chairman is Dr. Mark A. Bernstein, and the Scientific Program Chairman is Dr. James T. Rutka.

The Brain Tumor Satellite Symposium will be of great interest and benefit to neurosurgeons in academic and private practice settings, neurosurgery residents and fellows, neurologists, and basic scientists with an interest in experimental neuro-oncology.

An outstanding scientific program has been organized to include numerous invited speakers with expertise in brain tumor research and therapy. Specific research topics, which will be formally presented and reviewed, include tumor promoters and suppressors, gene therapy, brain tumor vaccines, signal transduction, cell cycle pathways, apoptosis, angiogenesis and invasion. A clinically relevant session on controversies in meningioma management has been organized, as has a special lecture on the science and surgery of human pituitary tumors by this year's President of the AANS, Dr. Edward R. Laws, Jr.

For any questions concerning this program, please contact Dr. James T. Rutka at (416) 813-6425.

Continuing Medical Education Credit

This activity has been planned and implemented in accordance with the Essentials and Standards of the Accreditation Council for Continuing Medical Education through the joint sponsorship of The American Association of Neurological Surgeons and the Joint Section on Tumors. The Accreditation Council for Continuing Medical Education (ACCME) accredits the American Association of Neurological Surgeons to sponsor continuing medical education for physicians.

The American Association of Neurological Surgeons designated this educational activity for a maximum of 12 hours in category 1 credit toward the AMA Physician's Recognition Award. Each physician should claim only those hours that he/she actually spent in the educational event.

Thursday, April 30

1:00 PM-1:05 PM Welcome—Mark A. Bernstein
1:05 PM-1:15 PM Introduction—James T. Rutka

Tumor Promoters and Suppressors

After this session, participants should be able to: identify the key molecular genetic changes that are found in human gliomas of different grades; discuss tumor suppressor genes and cell cycle regulation as they relate to human brain tumors; define the concept of apoptosis and describe the relevance of pathways of cell death in current and future brain tumor treatments.

Moderators: Kazuo Tabuchi, Griffith R. Harsh

1:15 PM-1:45 PM Identification of a Novel Tumor Suppressor Gene on Chromosome 10
Peter A. Steck, MD Anderson Cancer Center

1:45 PM-2:10 PM Molecular Markers for Glioblastoma Multiforme
David N. Louis, Massachusetts General Hospital

2:10 PM-2:35 PM Cell Cycle Dysregulation in Human Brain Tumors
Paul Hamel, University of Toronto

2:35 PM-3:00 PM Pathways of Cell Death
David McConkey, MD Anderson Cancer Center

3:30 PM-6:00 PM Free Papers Session

6:30 PM-8:30 PM Dinner with Poster Review

Friday, May 1, 1997

7:00 AM-8:00 AM Continental Breakfast
7:30 AM-4:30 PM Poster Review

Meningioma

After this session, participants should be able to: assess patients with difficult meningiomas and make decisions on the appropriate treatment.

Moderators: Joseph M. Piepmeier, Ronald E. Warnick

8:00 AM-8:20 AM Surgery for Difficult Meningiomas
Ossama Al Mefty, University of Arkansas

8:20 AM-8:40 AM Radiation Therapy for Difficult Meningiomas
Ladislau Steiner, University of Virginia

8:40 AM-8:50 AM Discussion Period

8:50 AM-10:00 AM Free Papers Session

10:00 AM-10:30 AM Coffee Break

10:30 AM-11:00 AM President's Special Lecture
Human Pituitary Tumors: Surgery and Science in the 21st Century
Edward R. Laws, Jr., President AANS, Charlottesville, Virginia

Angiogenesis and Invasion

After this session, participants should be able to: describe angiogenesis and invasion as biological processes that can be utilized to effect changes in glioma cell growth; apply basic science aspects of angiogenesis and invasion to their clinical practice; discuss ongoing clinical trials related to anti-invasion strategies.

Moderators: Nelson M. Oyesiku, Mark L. Rosenblum

11:00 AM-11:20 AM Model Systems for Studying Glioma Invasion
Jorg-Christian Tonn, University of Wurzburg, Germany

11:20 AM-11:40 AM Novel Pharmacotherapeutic Approaches to Glioma Invasion
Tom Mikkelsen, Henry Ford Hospital, Michigan

11:40 AM-12:00 PM The Role of VEGF in Human Gliomas
Yancey Gillespie, University of Birmingham, Alabama

12:00 PM-1:00 PM Lunch

Futuristic Therapies in the Next Millennium

After this session, participants should be able to: explain novel and futuristic therapies as applied to human brain tumors; determine the types of future therapies that may become available for patients with malignant brain tumors.

Moderators: Mitchel S. Berger, Masao Matsutani

1:00 PM-1:15 PM Novel Approaches to Gene Therapy
Ennio Antonio Chiocca, Harvard University

1:15 PM-1:30 PM Modified Herpes Virus Vectors. Quo Vadis?
Robert L. Martuza, Georgetown University

1:30 PM-1:45 PM Attacking the Ras-Pathway with Farnesyl-Transferase Inhibitors
Abhijit Guha, University of Toronto

1:45 PM-2:00 PM Producing Brain Tumor Vaccines
Roberta P. Glick, Cook County Hospital

2:00 PM-4:00 PM Free Papers Session

MINUTES OF THE EXECUTIVE COUNCIL MEETING

Joint Section on Tumors
September 29, 1997 ♦ New Orleans, LA

The Executive Council of the Joint Section on Tumors was called to order at 6:40 AM by the Chairman, Mark Bernstein, MD. In attendance were Drs. Bernstein, Joe Piepmeier, Ed Laws, Peter Black, Roberta Glick, Ron Warnick, Bill Chandler, Bill Couldwell, Mike McDermott, Tony Asher, Jim Rutka, Mark Rosenblum, Nelson Oyesiku, Mitch Berger, Dennis Bullard, and Paul Kornblith. The minutes from the meeting in Denver were distributed and approved by voice vote.

Committee Reports

Treasurer's Report

The Section on Tumors remains in stable financial condition. As of June 30, 1997, the Tumor Section held assets of \$167,566. Dr. Piepmeier addressed the potential for investing a portion of our funds through the National Office in the range of \$50,000 to improve investment returns. This met with approval as long as this did not impair our ability to provide essential services to the membership. Dr. Piepmeier will proceed with this plan.

The following awards were presented at the 1997 CNS Annual Meeting:

Awards Committee

Preuss Award	Walter Jean, MD
Young Investigator Award	Ian Pollack, MD
Mahaley Award	Fred Barker, MD

It was suggested that the awardees and their photographs be used to spread publicity (e.g. through the web site).

Bylaws Committee

A copy of the proposed bylaws prepared by Dr. Jack Rock was included in the meeting booklet. These were considered to be comprehensive. Members of the Executive Council will be polled regarding their acceptance of these. Dr. Laws raised the issue of the move to start a separate Skull Base Section and suggested the Tumor Section try to avert this. Dr. Bernstein will take this forward and communicate with Dr. Al-Mefty.

Education Committee

Dr. Couldwell was given the charge to investigate current fellowships in neuro-oncology and prepare an update for the Council.

International Committee

No report.

Membership Committee

Dr. McDermott reported that there were applications for two new resident members and three faculty members. These were voted on by the Council and accepted for membership. This brings our membership to a total of 634.

Membership Services Committee

Dr. Asher was given the charge of updating active clinical research protocols with the assistance of Dr. Glick to include a list of funding sources. Dr. Kornblith has agreed to publish this in the Journal of Neuro-Oncology and this information could be added to the web site.

Newsletter

Dr. Warnick will attempt to get these mailed six weeks prior to meetings. The Council thanked him for his efforts and wished him luck.

Nominating Committee

No report.

Program Committee

Dr. Keith Black was thanked for his work on the program for the Congress meeting. Future meetings include Dr. Lillehei for AANS 1998, Dr. Jack Rock for the CNS 1998 and Dr. Ron Warnick for the AANS in 1999. The items for focused presentation will be coordinated with the meeting program directors to minimize conflict and improve the quality of the section meeting.

Research Committee

Dr. Glick presented information on an update for NIH research funding reflecting an increase in the budget for funding at the 30 percent level (no specific allocations for neuro-oncology). Criteria for peer review were addressed and new research funding opportunities were announced.

Dr. Warnick presented the outcome of his resident research opportunities in neuro-oncology questionnaire. These data were considered valuable and Dr. Warnick was encouraged to communicate these findings to the membership and program directors.

Task Force on Guidelines

The guidelines for low-grade gliomas are nearing completion. Suggestions were made for establishing guidelines for cerebral metastases with participation by the RTOG.

Other Business

Satellite Symposium

Dr. Rutka presented the outline for the program to follow the AANS Annual Meeting in Philadelphia which includes sessions on:

Tumor Promoters and Suppressors

Meningiomas

President's Special Lecture (Dr. Laws on Pituitary Tumors)

Futuristic Therapies in the Next Millennium

Angiogenesis and Invasion

continued on page 11

NEURO-ONCOLOGY RESEARCH OPPORTUNITIES

By Roberta Glick, MD

NIH Research Funding News

The news from NIH is optimistic. Awards of new and competing grants will likely rise this year and the success rate of extramural grants applications will reach 30 percent for the first time since 1988. In comparison, the success rate in recent years has been approximately 15 percent. NIH received \$13.7 billion for fiscal year 1999, which is a 7 percent increase over last year. The NINDS will be funded at \$780 million (also a 7 percent increase).

Impact of Managed Care on Research

In his appeal to Congress for additional NIH funding, Dr. Klausner, the Director of the National Cancer Institute, said that the growth of managed care and other changes in the health care industry posed "a very real danger for the continuation of cancer research and our continued progress against cancer" (*NY Times* 1/3/98). HMOs and other insurers are increasingly reluctant to pay even the costs of routine care for patients in early clinical trials. Dr. Klausner recommended that the government should authorize a "five-fold increase in the number of people participating in clinical trials of new techniques for the prevention and treatment of cancer to insure that all people who wish to participate are able to do so."

In addition, two studies published in the July 1997 issue of *JAMA* demonstrated: (1) a decrease in the number and size of NIH grants awarded in areas of the country with a large presence of managed care, and (2) the publication of 15 percent fewer scientific articles by

researchers in medical schools located in more competitive health care markets (as measured primarily by the prevalence of HMOs).

New NIH Peer-Review Criteria

The NIH has adopted "innovation" as a new grant criterion, reversing the prevalent view that creativity is penalized because it compromises feasibility. The new NIH peer-review criteria include:

Significance

Does this study address an important problem? If the aims of the application are achieved, how will scientific knowledge be advanced?

Approach

Are the conceptual framework, design, methods, and analyses adequately developed, well-integrated, and appropriate to the aim of the project?

Innovation

Does the project employ novel concepts, approaches, or methods? Are the aims original and innovative? Does the project challenge existing paradigms or develop new methodologies or technologies?

Investigator

Is the investigator appropriately trained and well suited to carry out this work?

Environment

Does the scientific environment in which the work will be done contribute to the probability of success?

INTERNET SITES PERTAINING TO NEURO-ONCOLOGY

A number of Internet Resources are now available to investigators, physicians, and patients. Some of the more recent web sites include:

Human Genome Project

http://www.ornl.gov/TechResources/Human_Genome/research.html

National Library of Medicine (NLM) free Medline service

<http://www.nlm.nih.gov/databases/freemedl.html>

American Brain Tumor Association

<http://www.abta.org>

Brain Tumor Foundation of Canada

<http://www.btfc.org>

National Brain Tumor Foundation

<http://www.brainumor.org>

Pediatric Brain Tumor Foundation of the United States

<http://www.ride4kids.org>

The Brain Tumor Society

<http://www.tbts.org>

Clinical Trials and Noteworthy Treatments for Brain Tumors

<http://virtualtrials.com>

NEURO-ONCOLOGY FUNDING OPPORTUNITIES

Current funding sources (and phone numbers) relevant to brain tumor research include:

AANS Young Investigator Award (847)-692-9500

American Brain Tumor Association (847)-827-9910

American Cancer Society (404)-329-7612

American Institute for Cancer Research (202)-328-7744

Cancer Control Research Program-NIH/NCI (301)-496-8520

Cancer Research Foundation of America (703)-836-4412

Fogarty International Center (301)-496-1653

National Brain Tumor Foundation (415)-284-0208

Pfizer Postdoctoral Fellowships (800)-201-1214

Sloan Basic Research Fellowships (212)-649-1649

Small Business Innovative Research (SBIR) (301)-206-9385

A new way to fund basic research by collaborating with a corporate entity and forming a small business endeavor. Funding is at the 75% level.

U.S. Department of Health and Human Services-NINDS (301)-496-9248

MINUTES (continued from page 9)

The call for abstracts was sent in November with a deadline of January. The membership felt that registration fees should be kept low to encourage attendance even if we need to provide financial support from the section. Drs. Bernstein and Piepmeier have already collected approximately \$7,500 in contributions from private sources to support the meeting.

Thieme Neuro-Oncology Book

Dr. Bernstein presented an outline of the proposed text. This book will have a unique format and will cover many disciplines concerning the evaluation and treatment of brain tumors. Authors will be contacted soon regarding the titles and format of their chapters.

RTOG

Dr. Bullard heads the Neurosurgery Subcommittee of the RTOG. He addressed the potential for support from the RTOG statistics, nursing and the opportunity for clinical research support. This was seen as a potentially valuable resource. Additional inquiries should be addressed to Dr. Bullard.

GO Project

Participation in the Glioma Outcomes Project was discussed. There was general agreement that this should not be used as a marketing tool for Gliadel. The need for outcome data was supported as an important tool for neuro-oncology. The Section on Tumors has provided a letter of support for this research.

AACR/JTS Meeting in San Diego

Dr. Piepmeier provided a brief outline of the program and considered this to be a valuable meeting. Potential collaboration for another meeting in two years met with general support.

Leadership Conference

Dr. Bernstein provided an outline of the data he presented at this meeting. Dr. Piepmeier presented an outline of what was presented at the meeting for the Council to review.

CBTRUS

Dr. Bernstein addressed potential support for CBTRUS from the Section and it was decided that the Tumor Section was willing to provide a letter supporting the importance of data collection by the CBTRUS.

The meeting was adjourned at 8:30 AM.

Respectfully submitted,

Joseph Piepmeier, MD
Secretary-Treasurer
Joint Section on Tumors

Professional
Development
WITH 

THE AMERICAN ASSOCIATION OF NEUROLOGICAL SURGEONS

Don't Miss These 1998 Courses!

Minimally Invasive Neurosurgery: Neuroendoscopy – Hands-On

October 30-31 – Cleveland, Ohio

Advanced Techniques And Successful Strategies in Image-Guided Neurosurgery:

An Intensive Review An Intensive Review

November 13-15 – Memphis, Tennessee

1998 Reimbursement Update for Neurosurgeons

June 11-13 – Minneapolis, Minnesota (Foundations)

August 27-29 – Chicago, Illinois (Foundations)

May 29-31 – Orlando, Florida (Advanced)

November 13-15 – Cancun (Advanced)

For more information, call the AANS Professional Development Department at (847) 692-9500, or email us at info@aans.org.



The AANS wishes to acknowledge our Professional Development Educational Partners for their generous support of medical education.



AANS/CNS Section on Tumors
22 South Washington Street
Park Ridge, Illinois 60068-4287

FIRST CLASS
U.S. POSTAGE
PAID
Des Plaines, IL
Permit No. 329