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Pediatric Section of Neurological Surgery
of the American Association of Neurological Surgeons
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SHORT CUTS

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SECTION TO MEET ON APRIL 5 IN WASHINGTON, D.C.

The Pediatric Section meeting of the annual meeting of the AANS will be on Wednesday, April 5, 1989 in the afternoon. The Section meeting is scheduled to begin with what I am sure will be one of the highlights of the entire meeting: the Donald Matson Lecture. The Matson Lecture will be given this year by Dr. M. Peter Sayers. He will be introduced by Dr. Bruce Hendricks, last year's Matson Lecturer. The Shulman award winner-best resident paper from the December meeting- will be announced at that time and the scientific program will follow as below:

SPECIAL SESSION: AANS Section on Pediatric Neurological Surgery, 2:45-5:30 p.m.
Special Lecture: 2:45-4:00 p.m.
The Matson Lectureship. Martin P. Sayers (To be introduced by E. Bruce Hendrick).
Scientific Session: 4:00-5:30 p.m.
Moderator: David G. McLone
Co-Moderator: Marion L. Walker

87. Management of Hydromyelia. Jeffrey H. Wisoff, Fred J. Epstein, Rick Abbott.
88. Management of CSF-Containing Cysts of the Brain in the Pediatric Population, or "Nature Abhors a Vacuum." Emily D. Friedman, Peter W. Carmel, Jacqueline Bello.
89. Current Neurosurgical Treatment of Medulloblastomas. A. Leland Albright, Jeffrey Wisoff, Paul Zeltzer.
90. Pseudocysts of the Abdomen Associated With Ventriculoperitoneal Shunts: A Report of 12 Cases and Review of the Literature. Sarah J. Gaskill, Arthur E. Marlin.
91. Identifying Risk Factors in Minor Head Injury in Children. Yoon S. Hahn, David G. McLone.
92. Differential Effects of Polyamine Depletion on Expression of the c-myc and c-src Proto-Oncogenes in the Medulloblastoma Cell Line, TE-671: Uncoupling of c-myc Expression and Cell Division. Donald A. Ross, Hideyuki Saya, Susan Stephen, Michael S.B. Edwards, Victor Levin.

MARK YOUR CALENDAR!

Dr. David McCullough will host the December meeting for which we will return to Washington, D.C. The dates of the meeting will be December 5-8, 1989. Further information will be in the next newsletter.

WINNER AND RUNNER-UP ANNOUNCED FOR SHULMAN AWARD

The winner of the Shulman award is Scott Falci for his paper "Rear seat lap belts -- are they really "safe" for children?" Dr. Lyn Wright's paper took second place.

58. REAR SEAT LAP BELTS -- ARE THEY REALLY "SAFE" FOR CHILDREN?

Scott Paul Falci, Dennis L. Johnson (Washington, DC)

Although 80% of traffic fatalities in children could be reduced by proper use of safety restraint devices, a recent report suggested that rear lap belts may be more harmful than none at all.

Over the past three years during a time when seat belt use has been mandated by state and

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SHULMAN AWARD WINNER . . .

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federal legislation and popularized by private safety campaigns, we have managed 8 lumbar spine fractures in children caused by standard rear lap seat belts. Children with the lap belt syndrome typically complained of abdominal and back pain, and the nature of their injury was underscored by a belt-shaped abrasion across the lower abdomen. Midlumbar spine fracture may be associated with paraplegia and life-threatening visceral injury.

The pelvis is the point of fixation in correct application of the adult lap belt. At impact the force of deceleration is dissipated in torque at the hip and in longitudinal distraction of the entire spinal axis. In a child the belt tends to ride above the pelvis, and the instantaneous axis of rotation moves up from the hip joints. The force of impact is concentrated in the midlumbar spine. If the spine is analyzed as a beam, the full spectrum of the reported injuries is predictable.

Lap belts are better than no restraint, but this study shows that the rear seat belts installed as standard equipment in US-manufactured cars do not meet the special needs of children.

18. MORPHOLOGICAL EFFECTS OF HYDROCEPHALUS ON THE CEREBRAL CORTEX IN NEONATAL KITTENS

Lyn Carey Wright, James Patrick McAllister, Stephen Katz, Thomas J. Lovely, David Miller (Philadelphia, PA)

Studies have been undertaken demonstrating the effect of hydrocephalus on the periventricular white matter in adult animal models. This present study evaluates the effects of hydrocephalus on the cortical mantle of our neonatal feline model of hydrocephalus. In order to induce hydrocephalus, the cisterna magna of four to eleven day old kittens was injected percutaneously with a solution of 25% kaolin. Clinically, splitting of the sutures with minimally enlarging anterior fontanelles could be detected at two to four days post-injection. Ultrasonic evidence of hydrocephalus was allowed to progress until day eighteen to twenty-five post-injection at which time the animals were sacrificed. The gross and cytoarchitectural changes of the cortical mantle in affected animals were compared with control age-matched counterparts who had undergone saline injections. Areas 4 (motor), 22 (association) and 17 (sensory) were examined. There was a substantial increase in the severity of changes noted in a rostral to caudal direction with area 4 being least affected and area 17 being most severely involved. A decrease in number as well as a disturbance in orientation was demonstrated in both the neuronal cell population and blood vessels. Neurons in areas least affected by hydrocephalus demonstrated vertically oriented dendritic processes. As hydrocephalus progresses these processes became horizontally directed. In the most severe cases no distinct pattern was observed. Furthermore, the deeper cortical layers were more affected than the more superficial laminae, in that more reactive and pyknotic neurons were present in layers V and VI. As the hydrocephalus became more severe, changes could be observed in the intracortical neurons within layers II and III. There were also notable changes in blood vessels regarding orientation and number. The degree of hydrocephalus correlates well with both the amount of neuronal cell loss and the notable paucity of blood vessels in severely affected areas. We postulate that the motor deficits seen with hydrocephalus as well as subtle cognitive deficiencies can be attributed to these neuronal and vascular changes.

LEADERSHIP CHANGES

As of the annual meeting of the AANS in April 1989, the leadership of the Pediatric Section will change. Dr. Donald Reigel will become the new Chairman. Dr. David McLone will be a member of the Executive Council. Dr. Robin Humphreys and Dr. David McCullough finish their term on the Executive Council and the Section wishes to thank them for all of their work. Their places will be taken by Dr. Mark O'Brien and Dr. Michael Edwards.

WELCOME NEW MEMBERS

New members elected at the previous meeting in December were as follows:

Dr. Concezio DiRocco and Dr. Chidamburam for Corresponding Membership; Dr. Jerry Bauer, Dr. Aldo Berti, Dr. Jeffrey Brown, Dr. Steve Gudeman, Dr. Javad Hekmatpanah, Dr. Gene Balis, and Dr. Kenneth Louis for Active Membership.

APPLICATIONS PENDING

The following people have completed membership applications submitted to the membership committee:

Dr. Bruce R. Rosenblum, sponsored by Martin B. Camins and Leonard I. Malis; Dr. Shelley Wernick, sponsored by Bruce C. Bressler and David G. McLone; Dr. Ted Dagi, sponsored by J. Parker Mickle and Mel A. Epstein.

MINUTES OF THE PEDIATRIC SECTION BUSINESS MEETING

The business meeting was held at 12:30 p.m. December 8, 1988 at the Camelback Inn in Phoenix, Arizona. Forty-eight active members were present. The Minutes from the April 1988 meeting were approved.

A presentation was made by Dr. McLone to Dr. Cheek to honor his previous Chairmanship.

There was a report from the Guidelines Committee by Dr. McLone. The Pediatric Section has represtation on the Guidelines Committee of the AANS. No separate guidelines were made for pediatrics. The guidelines were loose enough not to restrict practice and are now close to being final. Once final, they will be circulated.

Dr. McLone also reported because of the efforts of Dr. Michael Scott, an audit of the books of the Section was done and accountability will be improved by the parent organization and administration of the AANS.

The nominating committee report was given by Dr. Cheek. Dr. Donald Reigel was nominated as incoming Chairman and Dr. Mark O'Brien and Dr. Michael Edwards were nominated for members at large. This was voted on and unanimously approved.

The report of the membership committee was given. Dr. Concezio DiRocco and Dr. Chidamburam were recommended for corresponding membership, and Dr. Jerry Bauer, Dr. Aldo Berti, Dr. Jeffrey Brown, Dr. Steve Gudeman, Dr. Javad Hekmatpanah, Dr. Gene Balis, and Dr. Kenneth Louis, were nominated for active memberships. These were voted on and unanimously approved.

The Raimondi lecture was deemed successful this year. It was once again funded by Dr. Raimondi and given by Dr. Joseph Volpe on Pet Scanning in Premature Infants.

The annual meeting of the AANS will be in Washington in 1989. The Shulman award will be presented at that time. The award will be determined by the Executive Committee and the recipient notified after the meeting with the prize being given at the Section Meeting in April. The Matson lecture for the Section Meeting will be Dr. M. Peter Sayers introduced by Dr. Bruce Hendricks. In addition, there will be six papers, out of over two hundred abstracts submitted, presented. Dr. Reigel informed us that the preliminary choice for the annual December section Meeting will be Washington, DC with the host being Dr. David McCullough.

The Hydrocephalus Foundation wishes to establish an award for work in hydrocephalus to a resident or fellow. There will be a one thousand dollar prize. This will be discussed in more detail by the Executive Committee and the initial award, if approved, will be given in December.

There being no further business the meeting was adjourned at 12:50 p.m.

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