

Society for Pediatric Anesthesia NEWSLETTER

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Winter 1998

11th Annual Meeting Summary

San Diego, California October 17, 1997

Gail E. Rasmussen, M.D. Vanderbilt Children's Hospital



Gail E. Rasmussen, M.D.

This day long meeting was divided into two main sessions. The morning session focused on issues of pediatric pain management. The afternoon

session concentrated on perioperative glucose homeostasis and administration. Society President, Dr. Mark Rockoff and the Winter Program Director, Dr. Joseph Tobin opened the program with introductory remarks. Dr. Rockoff noted that the Society has grown exponentially in a short time span, and that the strong meeting program draws participants from all over the world. Dr. Tobin encouraged participants to give their opinions on the program and submit suggestions for future meeting formats and topics.

The first session: Pediatric Pain- What's new in basic sciences? was moderated by Dr. Anne Lynn, Seattle Children's Hospital. Dr. Maria Fitzgerald of University College London, presented the first lecture entitled: "Developmental Physiology of Pain Pathways". She discussed the current research surrounding pain pathways and receptors in the young spinal cord, which is a key area for transmission and modulation of pain. Dr. Fitzgerald also reviewed the area of surgery early in life and the associated pain

affecting a child's future sensory processing and behavior. This formed the basis of concluding remarks on what then are "adequate" analgesic doses in infants.

The next lecture, entitled What's New in Pain Research? Implications of Pain Management was presented by Dr. Charles Berde, Children's Hospital, Boston. He discussed the possibility of designing better opioid analgesics that have good analgesic effects but are safer because of fewer side effects. There has



SPA hosted a buffet dinner at the San Diego Aerospace Museum.

been some success in creating peripheral opioid antagonists that can decrease the side effects. However, there has been little progress in separating the analgesic effects from induction of respiratory depression. Extensive research has been done to improve local anesthetics. Toxic effects such as cardiac depression and seizures have been reduced with drugs such as ropivicaine. Other studies have

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President's Message



Mark A. Rockoff, MD

an Diego was a wonderful place for the 11th SPA Annual Meeting. I appreciated it even more when I returned home to freezing temperatures in Boston. The program is described elsewhere in this Newsletter, but I would like to note that a number of the speakers are not usually heard by pediatric anesthesiologists (including many from abroad), and we hope this opportunity is one that the Society's membership welcomes. In addition, the dinner reception at the Aerospace Museum offered a delightful setting to meet with colleagues away from lecture halls. This too is an important part of our programs and it is hoped that many of you will plan to join us next year in Orlando.

I would like to thank Dr. Joe Tobin for organizing this (and last) year's Annual Meeting. As someone who has done this before, I know how much work is involved, but all of us benefit by the efforts of the Society's volunteers. Incidentally, Joe was appointed as a Director of the Society to serve out an unexpected vacancy that occurred on the Board of Directors. In addition, Dr. Lynn Martin (from the Children's Hospital in Seattle) was appointed by the Board as the Program Director for the next two years' Annual Meetings; the Education Committee has already met to plan the 12th Annual Meeting. This should also be an ex-

cellent program and I hope many of you will make plans to join us for it. In addition, we will be holding our Annual Winter meeting in a few months in February in Phoenix, and it too should be a great program, as well as a respite from winter weather for those of us in northern climates. Dr. Frank McGowan, the Winter Meeting Program Director, and the Education Committee have put together an excellent series of lectures, discussions, workshops and abstract presentations, so there should be something for everyone. The setting will once again be at the Pointe Hilton Resort at Squaw Peak, the site of our 1st Winter Meeting, since everyone enjoyed that location so much.

I would like to use this opportunity to update you on other activities of your Society. SPA membership is at an all-time high with approximately 1600 active members and 2500 resident/fellow members. There are nearly 100 individuals from 30 countries outside the USA and Canada. Peter Davis (Chair) and the Membership Committee organized the first SPA "booth" during the ASA meeting exhibits, and this was an excellent opportunity to introduce others to the Society and answer questions regarding pediatric anesthesia. A new brochure summarizing the benefits of SPA membership was distributed and anesthesia residents and pediatric anesthesia fellows are being especially encouraged to join.

The Pecliatric Anesthesiology 1997 Syllabus is available for purchase from Society Headquarters for \$25.00. Call, write or fax your request to:

SPA Headquarters

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The Finance Committee under the leadership of Dr. Anne Lynn has the major responsibility of maintaining the Society's fiscal health. They have been successful in soliciting significant corporate donations which have enabled the Society to keep membership dues minimal (and unchanged for many years). In addition, they have recently established a way for individuals to make (tax-deductible) donations which will be used to help support the Society's charitable activities. This is a wonderful way of honoring or memorializing friends or colleagues; further information will be forthcoming from the SPA's Administrative Offices.

The Publications Committee under the leadership of Dr. Jay Desphande, Editor, and Dr. Gail Rasmussen, Associate Editor, has increased the frequency of the Newsletter from two to three times per year. It is hoped that this will be valuable to the Society's members, and the work of all those volunteers who contribute to each Newsletter is much appreciated. The Communications Committee (Dr. Rae Brown, Chair) with the help of Dr. Joe Previte (Web Master) has updated the SPA Web Site and will be adding new material to it. This is an excellent way to find information about the Society quickly. In fact, patients and families have been contacting us through it, and I have taken the liberty of referring inquiries about individual pediatric patients to SPA members located nearby. I think this is the best way we can respond to specific requests about individual patients and I hope you will be able to assist families who get your name this way. Incidentally, the Web Site Address is http:// www.uams.edu/spa/spa.htm>. This may not be the easiest address to remember, but it is the least expensive way to provide this service and is brought to you with the kind support of Arkansas Children's Hospital. "Bookmarking" the address on your computer may be helpful.

Dr. David Nichols (Chair) and the Research Committee have continued to work with the Foundation for Anesthesia Education and Research to support an

annual SPA/FAER Award. This year's recipient, Dr. Neil Farber, will present a summary of his work at the meeting in Phoenix and I would encourage all pediatric anesthesiologists to consider applying to FAER for future stipends. The Society is committed to trying to assist pediatric anesthesiologists, young or not, in getting some funding to help with basic science or clinical research projects. As other sources of funding become more difficult, we will try to support additional grants in the future. In addition, Dr. Nichols has submitted a major grant application to the NIH seeking to examine the vexing and common problem regarding the anesthetic management of children with URIs. This has taken an enormous effort since the design mandates thousands of patients. It is an excellent example, however, of a situation that requires cooperation among pediatric anesthesiologists from many different hospitals, and could serve as a model for multi-institutional, collaborative, clinical trials under the sponsorship of the SPA. A final decision about the application is not likely until next year, but Dr. Nichols and the members of the Research Committee deserve a special commendation for all their efforts in organizing this huge project.

Dr. Mike Badgwell, Chair of the Governmental Affairs Committee, reviewed the issues relevant to pediatric anesthesia that were before the ASA's House of Delegates this year. Specifically, the Board discussed all ASA candidates for office and instructed the SPA delegate (me, as your President) how to vote. In addition, there was vigorous discussion about the ASA's proposal to adopt NPO Guidelines and a number of objections were expressed to the proposed 8-hour fasting period for infant formula. Dr. Mark Singleton conveyed this concern on behalf of the Society to the appropriate Reference Committee, as did others, and the Guidelines were "tabled" for further consideration.

Dr. Peter Rothstein (Director) is serving as the SPA's liaison to the journal *Anesthesia & Analgesia*. He is working with the leadership of the journal to de-

velop ways of enhancing cooperation between our organizations. SPA members are encouraged to subscribe to *Anesthesia & Analgesia*, since it is an excellent way to read about SPA meeting summaries, future SPA meetings, and other issues of pediatric interest. Dr. Bill Greeley is the new Pediatric Section Editor and we are all working to make the journal even more useful for pediatric anesthesiologists. Specifically, pediatric anesthesia has its own section within the journal and will be publishing periodic articles of interest regarding "hot topics" in pediatric anesthesia.

For example, Steve Hall and I wrote an Editorial that should appear in the December issue describing the background and impact of the recent accreditation of training programs in pediatric anesthesiology. The Residency Review Committee (RRC) for Anesthesiology is currently working on an application form for programs that wish to have their fellowship training in pediatric anesthesiology accredited. I have been told by Judith Armbruster, Ph.D. of the RRC that these forms should be available by the beginning of the new calendar year Directors of all programs that would like to obtain accreditation should contact Dr. Armbruster's office (312-464-4920) to be sure they are on the list to receive the application forms when they are made available. It is my understanding that the initial accreditation of programs will be based upon paperwork alone, but that subsequent re-accreditation will be linked to the site visit that occurs when the affiliated "core" anesthesia residency program is evaluated. Requests for further information or questions should be referred to Dr. Armbruster. Copies of the Second Edition of the Pediatric Anesthesiology Fellowship Directory can be obtained by contacting SPA's Administrative Offices.

A few additional announcements -Drs. Phil Bridenbaugh (recent ASA President) and Bill Owens (newly-elected ASA President) kindly accepted my invitation to attend a portion

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President's Message

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of the meeting of SPA's Board of Directors in San Diego. This was an excellent opportunity to improve communication and cooperation between the ASA and SPA, and hopefully will foster SPA's greater involvement in ASA matters related to children. In addition, Dr. Ellison Pierce, from the Anesthesia Patient Safety Foundation, also attended a part of the Board Meeting. SPA will be working with Dr. Pierce to develop a patient safety videotape on the subject of pediatric anesthesia. Dr. Steve Hall has been appointed by the Board to serve as Producer and will be working with a few SPA members in this regard. One of these is Dr. Pat Donahue, a colleague of Dr. Pierce, who was instrumental in getting this project going. Furthermore, Dr. Quentin Fisher volunteered to organize sub-committee within the SPA to examine ways that the Society and its members can get more involved with pediatric anesthesia in developing countries. Finally, Dr. Jim Viney and the Bylaws Committee have been doing the quiet job of assuring the Society's Bylaws remain current, despite the growth and changes that have been rapidly occurring.

I have been rather verbose here in describing some of the SPA's current activities to try to keep you informed about what is going on "behind the scenes." Those of you who know me are aware that lack of words is not one of my handicaps. However, it is my intention that these comments, and those of others in this Newsletter, will be useful to you. These issues will be discussed in more detail at our next meeting in Phoenix and I hope to see many of you there in a few weeks.

Mark A. Rockoff, M. D. *President*

Corporate Sponsorship Taskforce Meeting

Attendees: Drs. Rockoff, Greeley, Means, Robertson (Marquette), Collins (Roche) and Mr. Hinckley

A number of issues were explored with reference to maintaining and enhancing industry support for the SPA. Discussion centered around the specific needs of corporate sponsors. It was stated by Drs. Collins and Robertson that the majority of finding/sponsorship usually is derived from the marketing division of most companies and were earmarked as primarily educational gifts. Both of the represented firms complete their fiscal year near the end of the calendar year; stating that January/February were the times best to request corporate support.

Specific strategies were then discussed to enhance corporate support. These included: 1) individual, recognizable encounters between SPA and sponsor was desirable. This continued presence within SPA does not necessarily have to be a physician. Both representatives felt it very acceptable to have Mr. Hinckley serve as the recognizable contact; 2) a Hot Link to the SPA web site; 3) utilizing certain members of the SPA to serve as a focus group for industry opinion; 4) a demonstration of return on investment by SPA, e.g. FAER demonstrating the track record and performance of investigators who have been supported by industry grants to FAER.

The meeting was concluded with a discussion of a large endowed gift, e.g. \$50-\$100,000. Both representatives stated that these gifts only come about after a long-standing relationship. Approaching a charitable foundation within a company, e.g. Hewlett Packard is most likely to be most successful.

Respectfully Submitted,

William J. Greeley, M.D.

Membership Committee Meeting

Membership-recruitment and retention of members were the two main issues focused on during the Membership Committee meeting on Saturday, October 18, 1997

Recruitment of Members: Two sources of new members were identified: international members and graduating anesthesia residents and fellows.

International: In an effort to recruit new international members, we looked at the possibility of increasing the number of Canadian anesthetists. Suzanne Ullyot from Winnipeg, Canada, and the past President of the Pediatric Section of the Canadian Society of Anesthetists, was present. She noted that there are about 1700 anesthetists in Canada and approximately 200 who have an interest in pediatrics. She also noted that the pediatric component of the Canadian Anesthetists Society is not structured into a formal organization. Suzanne volunteered to contact Larry Roy (the present head of the Pediatric Section of the Canadian Society) to discuss the possibility of accessing the mailing list of the 200 Canadian Society members with an interest in pediatrics.

US Graduating Members: US graduating members who are already resident members should also be contacted about becoming active members. A list of these residents needs to be obtained, and SPA members from the resident's affiliated program should contact these graduating residents and fellows.

Retention: It was also noted that it is important to evaluate why people are leaving the society. It was noted that members who do not renew their membership receive three reminder letters. The suggestion was made that a SPA member should contact a nonrenewing member between the second and third reminder notice. The current plan is to have members of the SPA membership committee contact these people.

Other Business: The mechanics of being present at the SPA booth was addressed, but discussions of its impact were deferred until the February meeting.

Respectfully Submitted

Peter J. Davis, M.D.

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shown that including dexamethasone microspheres with bupivicaine may prolong duration and minimize side effects of the local anesthetic. Dr. Berde also discussed the spinal pain mechanisms related to allodynia and hyperalgesia and potential treatment modalities for these entities.

The second half of the morning session, *Pediatric Pain-Clinical Advances and Pearls*, was moderated by Dr. Allison K. Ross, Duke University Medical Center. The first speaker of this session was Dr. Michael Cousins from the University of Sydney and the Royal North Shore Hospital. Dr. Cousins also was the

1997 E. Rovenstine Lecturer at the National Meeting of the American Society of Anesthesiologists. His lecture was entitled A Clinician's View of Advances in Knowledge of Pain Mechanisms: Implications in Pain Management. He discussed that understanding pain transmission antinociceptive mechanisms can allow logical choices to be made in treating children. Pain can be divided into physiological and pathophysiological or clinical. Physiological pain involves peripheral nociceptors



Michael J. Cousins, A.M., MBBS, M.D.

that perceive a stimulus and transmit this to the brain. Pathophysiological pain occurs following an injury in a stimulus response pattern.

Dr. Steven J. Weisman of Yale University School of Medicine talked about *Cancer Pain Consultation in Pediatric Anesthesia*. He reviewed the types of cancer pain that are more prevalent in children as compared to adults. He then discussed the principles of therapeutic management for cancer patients, particularly those in terminal stages of their illness. Dr. Weisman also addressed the paucity of training and poor understanding of pharmacologic agents that health care professionals have in this particular area and spoke of the need for more adequate assessment tools.

Overall, the morning sessions provided an in depth look at both the ongoing research in the area of pain transmission and modulation, and a detailed clinical approach to the management of both postoperative pain and the more complex pain entities.

The afternoon session: *Practical Update: Glucose Homeostasis* was moderated by Dr. David Steward, Children's Hospital of Los Angeles. The first lecturer was Dr. Albert Aynsley-Green, who spoke on *Perioperative Glucose Homeostasis-Physiological Implications for Clinical Practice*. He discussed that glucose is a brain substrate and the importance of perioperative glucose homeostasis. The lower limit of glucose



Albert Aynsley-Green, D.Phil, MBBS

that can be tolerated before dysfunction occurs, is the generally accepted value of 45 mg/dl. *Hyperglycemia* also has detrimental effects including, cellular acidosis, brain edema and osmotic diuresis. Glucose homeostasis becomes increasingly important in the compromised patient with neurologic injury.

The **Pro-Con Discussion** started with the *Pro: The Case for Perioperative Glucose Administration (or what you don't know can hurt you or your patient)* position argued by Dr. Lynne Max-

well, the Johns Hopkins Medical Institutions. Her discussion began by reviewing the dangers of hyperglycemia and acidosis in the setting of cerebral ischemia and neurological damage. However, she opined that a practice of glucose avoidance is not recommended because of the potential problems that can arise with hypoglycemia and associated potential neurologic consequences that it can have. In the case of cardiopulmonary bypass, where it has been shown that post bypass hyperglycemia may worsen outcome, the issue is not so much exogenous glucose administration as the stress response to surgery. In perioperative glucose management, the answer is probably not just whether to give glucose or not, but to monitor blood glucose appropriately in the patients at higher risk for derangements in glucose homeostasis.



George A. Gregory, M.D.

The Con: Glucose Administration position was presented by Dr. George A. Gregory, University of California - San Francisco. He discussed in detail the detrimental effects of hyperglycemia when the brain is exposed to hypoxia or ischemia (as in the situation of cardiac arrest) and the substantiating studies. Dr. Gregory also identified certain groups of patients who may be at greater risk for hypoglycemia and, thus, may warrant exogenous glucose administra-

tion; namely: infants of diabetic mothers, small for gestational age infants, premature infants and those with poor preoperative

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11th Annual Meeting Summary Continued ...

nutrition and hyperalimentation. In these patients the attempt is the maintenance of normoglycemia and careful regulation of blood glucose is necessary.



Robert E. Hertzka, M.D.

Dr. Robert E. Hertzka spoke on Effective Advocacy for Children-the Whys and Hows of Political Activism. He discussed means by which one can become an advocate for children in the political arena and how we can influence the legislators representing us in the U.S. Senate and House of Representatives. One of the initial steps may be meeting that particular legislator through functions sponsored by the state medical associations or local civic and charitable functions. One should have a good command of the facts surrounding a particular issue and be-

gin a relationship with the legislator on a more positive note with constructive criticism. He outlined the correct way to address correspondence to these individuals and their staff members and how to effectively communicate a particular issue with a concise and brief description of the important issues. Once a liaison has been made he offers tips on how to maintain effective contact and to follow up on ideas and communication.

The last session of the meeting, *The Practice of Exotic Anesthesia*, was a unique session given by Drs. Patrick Morris and Donald Janssen of the San Diego Zoo (and we thought we had difficult airways!). They presented many of the challenges they face in anesthetizing a wide variety of species from giraffe to snake. There are similarities to our own practices in the challenges they face in the management of their patients in whom communication is limited and management challenges even from sheer size (elephant) are great.

The meeting culminated in a buffet dinner at the San Diego Aerospace Museum that was well attended and a fascinating collection of aircraft to admire during the meal.

Dr. Joseph Tobin deserves full credit and a pat on the back for putting together a well organized and run program!

Editor's Note

As reported by Gail Rasmussen this year's Annual Meeting was another great success attended by anesthesiologists from many countries who are interested in improving the perioperative care of children. The Society has even more of which to be proud. This year the Accreditation Council for Graduate Medical Education (ACGME) approved specialty training in pediatric anesthesia. The Society and many of its members played a crucial role in advancing the specialty by working on this successful effort.

As Gail Rasmussen and I conclude this first year as editors of the Newsletter, I want to thank the members of the Publications Committee who have been active in their support and participation. Rita Agarwal, Karen Bender, Howard Gutstein, Ron Litman, Tom Mancuso, Frank McGowan, Meb Watcha and Tom Vetter have helped define priorities for the Newsletter and contributed significant pieces this year. A special thanks to Gutstein, Brian Gronert, Zeev Kain, and Alan Klein who have been active members of the Committee and whose terms now come to an end this year.

I also want to thank Hallie Townsend and Stewart Hinckley at the SPA offices for keeping us on track and actually getting the Newsletter to press. And finally, I want to thank Gail Rasmussen for her endless energy and drive. See you in Phoenix!







The always-popular Annual Meeting Buffet Dinner was a hit at the San Diego Aerospace Museum.

Out and About the ASA

Highlights of the 1997 Annual Meeting in San Diego, CA

Jayant K. Deshpande, M.D. Vanderbilt Children's Hospital

This year, there were two scientific poster sessions related to pediatric anesthesia. **Poster Session 1** was moderated by <u>Drs. Mehernoor Watcha</u> (Children's Hospital, Dallas), <u>Joel Gunter</u> (Children's Hospital, Cincinnati), <u>Joe Cassady</u> (Nemours Children's Clinic, Jacksonville), <u>Dean Kurth</u> (Children's Hospital, Philadelphia) and <u>Steve Rimar</u> (Yale University). The <u>poster presentations</u> focused on clinical topics ranging from the effect of premedication on MAC to postoperative behavioral changes.

Ziev Kain, Yale New Haven Medical Center, and colleagues contributed two abstracts on the "effect of premedication and "brutane" on postoperative behavior". In the first study, the authors evaluated the short and long term effects of premedication on the children's anxiety, separation anxiety and other related categories. Two groups of children were studied: those who received midazolam with Tylenol and those who received Tylenol alone for premedication. The midazolam group exhibited significantly lower anxiety and fewer negative behavioral changes as far out as the 3rd postoperative day In the second study, the group studied the effect of "brutane", i.e., no premedication and no parents during induction. The children underwent mask inhalational induction with halothane: N20:02, this was continued even if the children became agitated during induction. The patients' behavior was assessed during induction, and then on postoperative days 2,3,7 and 14. The children exhibited significant negative behavioral changes in the immediate postoperative period and up to 7 days afterward. However, by 2 weeks, the negative behaviors were resolved.

VandenHoven and collaborators, Loma Linda Medical Center, studied a new benzodiazepine, zolpidem, for premedication. Children scheduled for elective surgery received either midazolam or zolpidem, orally. Sedation and anxiety were scored by the parent and one of the investigators using a visual analog score before, 30 minutes after the oral dose, upon transfer to the OR and in the PACU. Both drugs were found to be equally effective in providing sedation and anxiolysis. In the authors' institution, the pharmacy costs of zolpidem proved to be lower, suggesting a possible advantage for the drug.

Kahoru Nishina and associates, Kobe University, Japan, evaluated "oral clonidine premedication and its effect on the MAC of sevoflurane for tracheal intubation". The authors compared the effect three different premedications (placebo, 2 or 4mcg/kg clonidine) on MAC of sevoflurane alone or sevoflurane with 60% N20. They reported that cionidine at either dose decreased MAC. The addition of N20 further decreased MAC in all groups by 24-27%.

Amber Stein and a group from Jefferson Medical College, Philadelphia, studied the "differences between induction of anesthesia with sevoflurane using a high concentration versus incremental induction". One group of children underwent mask induction with a circuit primed with 8% sevoflurane in 2:1 N20:02; the other group underwent mask induction with a circuit primed with 100% 02 to which was added 2:1 N20:02 and gradually increasing sevoflurane concentrations Whether the children received premedication is not clear. The authors found the high concentration group and significantly more rapid anesthesia induction. Both groups exhibited similar levels of vital signs and airway complications. They suggested that the high concentration induction is beneficial in uncooperative patients.

Drs. S Inamata and colleagues (University of Tsukuba, Japan) reported on "Induction time required for tracheal intubation (timeEI) with 5% sevoflurane in oxygen in children: a comparison with 2.5% halothane". The investigators wanted to determine the time to intubation without the use of neuromuscular blocking agents. The ED50 and ED95 of sevoflurane and halothane (time to endotracheal intubation which prevent 50% and 95%, respectively, of patients from coughing or moving) to endotracheal intubation was measured in children who underwent induction with a fixed concentration of volatile agent. The ED95 in the sevoflurane group was shorter (3 min) than with halothane (4 min).

"Perioperative Sonoclot analysis in children" undergoing surgery was the subject of an abstract by <u>Drs. E. and P. Pivalizza</u> (University of Texas, Houston). Sonoclot analysis evaluates time to onset and rate of fibrin formation The authors wanted to determine the norms for Sonoclot analysis in children who did not have disease, coagulopathy or anticoagulant use. The study results were compared to norms published for adults. The authors suggest that published results of adult norms also may be applicable for pediatric patients.

Thomas Erb and associates from the University of Basel, Switzerland, studied the "hemodynamic effects of sevoflurane induction and maintenance during spontaneous ventilation". Patients were randomly assigned to either the sevoflurane or halothane group. After receiving rectal midazolam premedication, children underwent incremental inhalation induction (agent in 60:40 N20:02). Once the eyelid reflex had disappeared, the inhalation agent concentration was reduced to 1.5MAC and an LMA was inserted. End tidal anesthetic concentrations were maintained at I MAC. Caudal epidural block was placed prior to surgery. The investigators reported similar hemodynamic changes in both the sevoflurane and halothane groups.

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"The effects of environmental exposure to tobacco smoke on postoperative hypoxemia was the topic of the investigation" by Eric Skolnick and the group from Columbia University. Using urinary cotinine as an indicator of environmental exposure, the authors measured the room air SpO2 in PACU in patients after halothane, N20:02 anesthesia. They found a higher percentage of children with environmental exposure displayed hypoxemia, defined as SpO2 <90%. The risk of hypoxemia was nearly double that found in children without environmental exposure.

Y Kimoto and associates (Wakayama Medical College, Japan) found that "continuous infusion of synthetic atrial natriuretic peptide increases urine volume and restores its plasma level in open heart surgery of children". In one group, children treated with AN received the infusion during and after cardiopulmonary bypass. The other group received no AN. The authors assessed plasma levels of ANP, urine volume and mean arterial pressure. They found that ANP infusion induced a significant increase in urine volume without decreasing systemic arterial pressure. They suggest that AN infusion may be clinically useful in establishing adequate urine output during and after cardiopulmonary bypass.

"Fluid temperature in IV tubing with and without blood warming. Are conventional fluid warmers effective in pediatric anesthesia?" was the focus of the report by J. Schultz. C. Guest and B. Bissonnette (University of Toronto). The authors studied the effects of infusion rate on the temperature and packed red blood cells reaching the end of the infusion tubing with and without fluid warmers. Fenwal blood warmers (BW-5) were used for the study. The temperature of the blood was monitored at 13 different sites along the infusion tubing. The authors found that unwarmed PRBCs infused at slow rates rapidly approached room temperature along the infusion path. Conversely, the temperature of warmed PRBCs infused at low rates rapidly decreased toward (but not reaching) room temperature. They suggest that at infusion rates commonly used in pediatrics the cost and efficacy of blood warming is questionable and may not be warranted.

R. F. Kaplan and collaborators (children's national medical center, D.C., Children's Memorial Center, Chicago, Massachusetts general Hospital, Boston, Duke University, Durham, NC) presented their results on "a multi center study to confirm the efficacy and safety of IM rocuronium in pediatric patients". This randomized, assessor blinded study evaluated the pharmacodynamics and efficacy (for intubating conditions) of rocuronium given IM and intravenously under "light" general anesthesia. The doses compared were 1.0 mg kg (infants) and I B mg/kg (children) IM and 0.45 mg kg IV. Rocuronium produced neuromuscular blockade in all children. However, conditions for intubation were poor in 13/26 children who received IM rocuronium.

"Neuromuscular effects of ORG9487 compared with 0.2 mg/kg of mivacurium in pediatric patients anesthetized with halothane" were described by <u>C. A. Kennan and associates</u> (University of Miami, Children's Hospital, Pittsburgh; Duke University). ORG9487 is a steroidal neuromuscular blocker with reportedly rapid onset and short duration comparable to succinylcholine. The doses of ORG9487 were 1, 2 or 3 mg/kg depending and of mivacurium 0.2 mg/kg. ORG9487 produced a deeper neuromuscular blockade after I min than did mivacurium. The difference in the rate of onset of effect among the doses of ORG9487 used is unclear.

A.G. Bailey and E.B. Fried (University of North Carolina) presented their findings on "EKG changes with intravascular injection of bupivacaine: is it the bupivacaine or the epinephrine?". The authors presented their observations with two infants who had probable intarventricular injection of local anesthetic. They discuss that epinephrine in the test dose of a caudal injection to cause tachycardia is an unreliable test T-wave changes seen after intravascular injection are likely related to both the epinephrine and the bupivacaine and therefore, test doses should include both drugs.

M Tanaka and T. Nishkawa (Akita University, Japan) presented the their study on the "efficacy of simulated epidural test dose in children anesthetized with sevoflurane". They used intravenous epinephrine (0.5 mcg/ kg) to simulate intravascular injection of an epidural test dose. Hypothesizing that pretreatment with atropine may increase the reliability (greater heart rate response) of the epinephrine test dose, one study group received IV atropine (0.01 mg kg) was administered before the epinephrine. No differences were found in the heart rate response of these two groups.

T. Suwa and colleagues (University of Tsukuba, Japan) studied the "pressure guided method for identification of the epidural space in infants and children". In anesthetized children, a 19 gauge 3.5 Tuohy needle was inserted at the desired thoracic intervertebral space to perform the epidural puncture. Instead of using a stylet during the procedure, the authors used a pressure tracking method, using a pressure transducer attached by heparinized-saline filled tubing to the hub of the needle. When the tip of the needle enters the epidural space the pressure immediately falls markedly below that of the extradural space. They suggest that this is a safer, more reliable technique than the conventional approach.

"A comparison of 3 intrathecal morphine doses during spinal anesthesia in children having open heart surgery" was performed by J.C. Finkel and group (Children's National Medical Center, Washington, DC). After induction of anesthesia and prior to surgery the patients received intrathecal tetracaine (1% in D 10W) combined with 5, 7 or 10 mcg/kg of morphine The authors studied the effect of the drugs on postoperative analgesia. All children had adequate analgesia. For the 2 higher doses,

this effect persisted beyond 12 hours. The rate of side effects was not statistically different in the three groups.

E. Mossad et al. (Cleveland Clinic and Children's Hospital of Michigan, Detroit) compared the use of phenoxybenzamine to sodium nitroprusside to achieve vasodilation in pediatric cardiac surgery. They found that the children treated with phenoxybenzamine had significantly higher flow on cardiopulmonary bypass at similar levels of mean arterial pressure. In the ICU, the left atrial pressure was higher in the nitroprusside group. The authors suggest that phenoxybenzamine may be a better vasodilator because it can maintain better organ perfusion and peripheral circulation than nitroprusside.

Dr. M. Goodarzi (Children's Hospital, Los Angeles) summarized his finding on the "comparison of analgesic potency of epidural fentanyl, hydromorphone and morphine for postoperative analgesia in children". Children undergoing orthopedic surgery were anesthetized with volatile agent, supplemented with epidural bupivacaine (2mg/kg) An epidural catheter was placed in the operating room. Postoperatively, children received intermittent duramorph (10-20 mcg/kg), fentanyl (1 mcg/kg/hr) or hydromorphone (1 mcg/kg/hr) for 48 hours. All patients had adequate analgesia. The author found a higher incidence of low oxygen saturations in the duramorph group. None of the children receiving continuous infusions had low saturations. The incidence of vomiting was highest in the morphine group (25%), intermediate in the fentanyl group (20%) and lowest in the hydromorphone group (10%). There was a higher incidence of pruritis and urinary retention in the morphine group compared to either infusion group.

"The effects of desflurane on somatosensory evoked potentials (SSEP) in children undergoing spinal fusion" were reported by D. Ririe. J. Mooney and R. Kandt (Bowman Gray School of Medicine, Winston-Salem). Anesthesia was induced with midazolam, pentothal, fentanyl and pancuronium intravenously in six children undergoing spinal instrumentation for scoliosis. Maintenance anesthesia consisted of fentanyl infusion, N20:02, intermittent midazolam and pancuronium. Labetalol was used to maintain mean arterial pressure between 60-0 mmHg. Desflurane was administered at 0.25, 0.5 and 0.75 MAC until the end tidal concentration was stable. Then the SSEPs were measured and compared to pre desflurane values. The authors found no difference in cortical SSEP latency or amplitude at any of the concentrations. The authors discussed their results which agreed with adult data but contradicted previously published reports in children.

E Wodey and colleagues (CHRU, Rennes, France) presented their results of "comparative hemodynamic depression of sevoflurane versus halothane in infants: an echocardiographic study". After midazolam premedication, hemodynamic and echocardiographic (aortic diameter, shortening fraction, ascending aortic flow, cardiac index, stress velocity index) data were collected in 30 healthy infants undergoing scheduled surgery.

Both agents resulted in cardiovascular depression in the study patients. However, sevoflurane induced significantly less cardiovascular depression in infants than did halothane.

"The effect of a right-to-left cardiopulmonary shunt on the rate of rise of end-tidal and arterial halothane in children" was studied by Dr. J. Huntington and coworkers (University of Michigan Medical Center, Ann Arbor). In four children with known right-to-left shunts (atriopulmonary anastomosis with atrial fenestration) anesthesia was induced with halothane: N20:02 by mask. Maintenance anesthesia consisted of intravenous propofol with inhaled N20:02. Ventilation was controlled to maintain constant minute ventilation. Halothane) .8% was then added and the propofol discontinued. Inspired and expired halothane concentrations and arterial blood concentrations were measured periodically throughout the study period. The procedure was repeated after closure of the fenestration. Interestingly, there was a significant difference in the rate of rise of the arterial halothane concentrations. However, the time constants for (FE/FI) were not different before and after fenestration closure, suggesting that the presence of a R-L shunt has little impact on the rate of inhalational induction

Dr. C. Aun and a team from University of London, UK, summarized their findings on "validation of respiratory plethysmography using QDC calibration in anaesthetized infants". Qualitative diagnostic calibration (QDC) is a means of calibrating respiratory inductive plethysmography based on 5 minutes of tidal breathing. Twenty infants who underwent either sevoflurane or halothane anesthesia and a laryngeal mask was placed. The QDC method was compared to the findings from a pneumotachograph attached to the LMA. The results ofthe QDC method were within ±1 ml/kg. The use of mechanical ventilation decreased the accuracy of the method to ±4 ml/kg. One should keep this in mind when interpreting study results which use the QDC method to study the effects of anesthesia on ventilation.

A. Reber, R. Paganoni and F.J. Frei (University of Basel, Switzerland) found that "Chin lift may worsen airway patency in children". Twenty four children who were to undergo elective tonsillectomy or abdominal surgery were anesthetized with halothane in N20:02. Anesthesia was maintained with 1% halothane in 50% N20. A fiber optic bronchoscope was inserted through the nose for observation and measurement of the airway Measurements were performed while the children were spontaneously breathing with the head in a standardized position, before and after chin lift. The authors found that in children with large tonsils, chin lift caused marked worsening of the patency because of medial displacement of the tonsils.

"The pharmacokinetics and dose response for oral acetaminophen in children" were studied by <u>Dr. M. Wheeler</u> et al (Children's Memorial Hospital, Chicago). The authors were in-

Continued on Page 10

terested in the effects of general anesthesia and increasing doses of acetaminophen on its pharmacokinetics. Healthy children undergoing myringotomy and tube insertion received one of 4 oral doses preoperatively. Acetaminophen levels were determined at 8 time points after administration. Drug levels were half those seen with similar doses administered rectally (previous study), possibly because of the first pass metabolism of the oral dose. The study findings suggest that a single dose of 20 mg kg should produce therapeutic levels in children.

R. M. Dsida and group (Children's Memorial Hospital, Chicago) studied the "developmental pharmacokinetics of intravenous ketorolac in pediatric surgical patients" after a single dose (0.5mg kg) following elective orthopedic or urologic surgery Ketorolac plasma levels were obtained at 16 different time points up to 10 hours after the dose. The authors found the volume of distribution to be similar to that in adults (0.11 L/kg ±0.05) and the clearance rate to be slightly greater (0.49 vs 0.35 ml/kg/min).

H.M. Munro and colleagues (University of Michigan, Ann Arbor) studied "prescription patterns and pain relief in children following outpatient surgery". The authors surveyed perioperative pain management, analgesic prescription practices and the perception of children's pain at discharge (by nurses and parents) and at home (by parents) after surgery. They report a variety of prescription patterns and compliance with dosage regimens. Despite this, 84% of children had good pain control after surgery. Not surprisingly, at the time of discharge to home, the most nurses assessed the child to have adequate analgesia (98%) whereas, many parents (18%) described the child's pain as moderate to severe The investigators state that parent concerns regarding pain should be a focus of discharge education.

"Postoperative agitation in children: sevoflurane vs halothane" was the subject of a study by B. C. Weldon and the group from St. John's Mercy Medical Center, St. Louis. 80 children undergoing inguinal-genital outpatient surgery were studied. Patients received midazolam premedication and general anesthesia with either sevoflurane or halothane (in 60% N20) via mask and LMA. A caudal epidural block was placed (lidocaine and bupivacaine) prior to incision. Agitation in the PACU was assessed according to study protocol. Agitated children received either placebo or midazolam IV. The authors found that sevoflurane anesthesia was associated with a higher incidence of postoperative agitation than was halothane anesthesia. Furthermore, this condition prolonged discharge from PACU.

Donald Swartz and colleagues from Baystate Medical Center, Springfield, MA, assessed the "gastric contents in children presenting for upper endoscopy" for a variety of reasons. These patients are thought to be at higher risk because of their gastrointestinal problems. Investigators studied 110 children presenting for upper endoscopy. The children were kept NPO for at least 6 hours. For the procedure, deep sedation or general anesthesia was administered according to the attending

anesthesiologist's choice. The volume of gastric contents was measured by aspirating stomach contents through the suction port the endoscope. Volume and pH of the aspirated fluid were recorded. Results were compared to previously published data from normal patients. The authors report that the volume and pH of gastric contents in the study patients is no different from that in children without GI symptoms. The authors suggest that this group may not be at any higher risk of aspiration than other children undergoing deep sedation or general anesthesia.

The second session was a **Poster Discussion Session** moderated by <u>Steven Hall</u> (University of Chicago), <u>Carl Fischer</u> (Children's Hospital, Cincinnati), and <u>Joe Tobias</u> (U. of Missouri). This format allows for authors to briefly present and discuss their findings with the audience.

M. F. Watcha and colleagues (University of Texas, Southwestern) studied the "effect of traditional versus newer anesthetic drugs and techniques on O.R. efficiency in pediatric outpatient surgery". The authors used computer OR log data on patients undergoing eye muscle surgery to extract data on a halothane/vecuronium/intubation/neostigmine group and a "modern" sevoflurane via LMA group. They report that in the cases of less than 20 minute duration, the modern technique had a beneficial effect on *institutional* cost savings and income. These savings were not achieved with longer cases (>55 minutes).

J. T. Algren and B. S. Skjonsby (Baylor College of Medicine, Houston) related that "propofol reduces vomiting but not emergence or recovery periods in cystic fibrosis (CF) patients undergoing endoscopic sinus surgery (ESS)". Patients with CF undergoing ESS were randomized to isoflurane, propofol and desflurane groups. Pre- and post-op pulmonary function tests, and emergence and recovery from anesthesia were assessed in each group. The anesthetic regimen did not significantly affect emergence and recovery times. Most pulmonary functions were decreased in the post-op period. However, the authors report higher incidence of vomiting, increased need for supplemental 02 and unscheduled admission in the 2 volatile anesthetic groups.

"Postoperative behavior and emergence delirium in pediatric patients: a prospective study" was presented by <u>S. W. O'Kelly, T. Voepel-Lewis, A. R. Tait</u> (University of Michigan, Ann Arbor). Behavior of 415 children was assessed in the immediate postoperative period. Anesthetic technique was not controlled. The authors report that a significant number of children experience unsatisfactory emergence (12%) Some contributory factors may include shorter anesthesia time, shorter time to emergence, sevoflurane and inadequate analgesia as well as the child's preop temperament.

<u>P Westrin and A Beskow</u> (University of Lund, Sweden) reported that "sevoflurane causes more postoperative agitation in children than does halothane". The authors compared the two agents in children undergoing minor surgery. Anesthesia was maintained with volatile agent in N20:02 via mask. Children were evaluated both in the immediate recovery period and 24 hour

afterward. Emergence time was shorter in the sevoflurane group. Agitation in the early recovery period also was more common in this group and was greater in the younger children.

"Can improved chest wall mechanics explain the lower respiratory drive during propofol vs halothane anaesthesia in children" was the question studied by K. Brown (Montreal Children's Hospital). In this cross over design study patients were anesthetized with one of the two drugs first, measurements were made using respiratory inductive plethysmography, the second drug was then administered and time allowed for re-equilibration and measurements were repeated. Findings suggest that under propofol anesthesia the respiratory drive is influenced by the changes in chest wall mechanics.

L. Hastings and colleagues (Johns Hopkins Medical Institutions, Baltimore) studied the "CSF and plasma fentanyl levels in children undergoing ventriculoperitoneal shunt surgery". The authors present their findings of CSF and plasma levels at 76-86 minutes after a dose of 5 mcg/kg. The levels were highest in the youngest age group (< 1 year of age). Interestingly, the CSF/plasma ratio was the highest in children 1-3 years of age, indicating a higher CSF level than would be predicted based on the plasma levels.

P. Davis and collaborators (Children's Hospital, Pittsburgh, Duke University and Glaxo Wellcome Pharmaceuticals) reported on the pharmacokinetics of remifentanil in neonates. The kinetics of remifentanil in neonates seem to be similar to that of other opioids: decreased clearance, increased volume of distribution and increased half life as compared to older children.

J. Motsch and colleagues (University of Heidelberg, Germany) found that "modified priming enhances rocuronium onset in children". The authors suggest that priming one minute before the full dose modified the neuromuscular blockade. They suggest a priming dose of rocuronium dose based on 1/10 of a multiple of (either 1.5 or 2 times) the ED95 dose; that is, 0.045 mg/kg or 0.06 mg/kg rocuronium.

The third pediatric session was also a **Poster Discussion** Session moderated by <u>Jeff Morray</u> (Children's Hospital, Seattle), <u>Gopal Krishna</u> (Riley Children's Hospital, Indianapolis) and <u>David Lowe</u> (St. Christopher's Children's Hospital, Philadelphia).

Andrew Zimmerman. A. E. Ibrahim and D. D. Hansen, Children's Hospital, Boston, reported on the "Effects of halothane and sevoflurane on cardiac electrophysiology in children undergoing radio frequency catheter ablation [RFCA]". The authors found that neither halothane nor sevoflurane exerted a significant effect on cardiac conduction in children undergoing RFCA.

Yuri Nakae and colleagues, Hokaido Children's Medical Center, Japan, studied "Combination of aprotinin and hemodilution autologous transfusion in pediatric open heart surgery". The study evaluate whether combined treatment reduced blood loss

and use of homologous blood. Results in three groups - aprotinin+hemodilutional autologous transfusion + autotransfusion with CellSaver device (1); autotransfusion with CellSaver (2); and aprotinin and autotransfusion (3) were compared. The authors found that perioperative blood loss was the least in the first group and highest in the third group. Use of homologous was significantly less in group 1 compared to 2 and 3. The postoperative hematocrit was the same in all three groups, whereas the platelet counts were higher in group 1 compared to 2 and 3. Thus the combined approach may provide substantial advantage in caring for perioperative cardiac patients.

"Aprotinin decreases transfusion requirements by 50% in posterior spinal fusion" according to an abstract presented by Alain Rochette and a group from Hopital Lapeyronie, France. The investigators found that aprotinin therapy decreased transfusion requirements by reducing intraoperative blood loss in these children. D-dimers were markedly elevated in the placebo group and normal in the aprotinin treated group, suggesting that inhibition of fibrinolysis may be involved.

David A. Rosen and co-workers (West Virginia University, Morgantown reported on the "maintenance of T3 levels in children undergoing cardiac surgery". They wanted to measure postoperative improvements after cardiac surgery produced by epidural narcotics and determine whether epidural narcotics could attenuate the fall in T3 (liothyronine) after cardiopulmonary bypass. The investigators report that epidural morphine injected prior to surgery maintained T3 levels after bypass. They go on to suggest that this may result in less hemodynamic instability and a decreased need for inotropic support after cardiopulmonary bypass.

According to the abstract presented by Yaacov Gozal and colleagues (Hadassah University Hospital, Jerusalem) "propofol does not modify the hemodynamic status of children with intracardiac shunts undergoing cardiac catheterization". Fifteen patients undergoing cardiac catheterization were anesthetized with fentanyl (1 mcg/kg) and propofol infusion (sufficient to achieve immobility). Hemodynamic data were obtained through the invasive catheter. Control data were obtained in patients 4 minutes after the propofol infusion was discontinued. The authors report that all hemodynamic variables were unaffected by the infusion of propofol.

Melissa Wheeler and coworkers (Children's Memorial Hospital, Chicago) presented their findings on "Bronchoscopic, computer-assisted examination of the changes in dimension of infant tracheal lumen with changes in head position". The study was stimulated by the American Heart Association's and American Academy of Pediatrics' caution against extreme positions of the head during resuscitation. The investigators compared the tracheal diameter and cross sectional area produced by extreme

Continued on Page 12

flexion and extension. They found that the tracheal dimensions did not vary significantly among the three different positions.

C. E. Allison and collaborators (Vrije Universiteit, Amsterdam) presented their "Comparison of the incidence of the oculocardiac reflex during sevoflurane or halothane anesthesia for outpatient surgical correction of strabismus in children". Patients received no premedication and were anesthetized with either sevoflurane or halothane in N20 via LMA. Rectal paracetamol was given after induction of anesthesia. No anticholinergic medications were given. The authors report that the oculocardiac reflex occurred significantly less often in the sevoflurane group.

"A prospective evaluation of the risks of upper respiratory infections in children undergoing open heart surgery" was reported by <u>S. Malviya</u> and the group from University of Michigan, Ann Arbor. They studied the relationship of URI to postoperative duration of ventilatory support, days in ICU and hospital, and postoperative complications. Their results from 39 patients with URI suggest that there is no increase in the duration of postoperative ventilatory support, ICU or hospital stay. Complication and mortality rates were not greater in children with URIs.

The annual **Breakfast Panel Discussion** sponsored by the Section on Anesthesiology, American Academy of Pediatrics, "What you really need to know about anesthetizing neonates" was a very timely discussion for the general anesthesiologists. The session was moderated by Robert M. Spear, MD, Children's Hospital of San Diego. <u>Dr. Charlie Lockhart</u>, Children's Hospital, Denver, discussed "Who should be anesthetizing neonates and what do you really need to know?" <u>John B. Rose MD</u>, Hospital of the University of Pennsylvania, Philadelphia, talked about some of the "Pitfalls that can be encountered and how to stay out of trouble". The final discussion on "Now what do we do?: Post op pain management" was led by Constance Houck, MD, Children's Hospital, Boston.

The Clinical Forum on Pediatric Anesthesia Tuesday morning was a tremendous success because of the audience and panel interactions. Two cases involving commonly encountered problems comprised the focus for the talks. Dr. Mark Rockoff (Children's Hospital, Boston) moderated the discussion with a panel of experts: Dr. Peter Davis (Children's Hospital, Pittsburgh), Lyn Means (Riley Children's Hospital, Indianapolis) and Niall Wilton (Children's Hospital, San Diego). The lively, frank and friendly exchanges provided a good learning atmosphere for all those present.

The Society for Pediatric Anesthesia acknowledges with deep appreciation the following organizations that have provided educational grants.

1997

Abbott Laboratories
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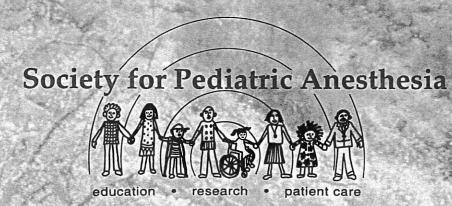
1998 to date

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Pediatric Anesthesiology 1998

February 12-15, 1998 Pointe Hilton Resort at Squaw Peak Phoenix, Arizona

A joint meeting sponsored by the Society for Pediatric Anesthesia, the American Academy of Pediatrics - Section on Anesthesiology, and the Society for Education in Anesthesia



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There's still time to register...

Pediatric Anesthesiology 1998

The Fourth Annual Winter Meeting of the Society for Pediatric Anesthesia (SPA) and the American Academy of Pediatrics-Section on Anesthesiology will take place at the Pointe Hilton Resort at Squaw Peak in Phoenix, Arizona from Thursday, February 12 to Sunday, February 15, 1998.

This year's scientific program includes plenary sessions on Coming Soon to an OR Near You and Live Interactive Pediatric Anesthesia Crisis/ Disaster Simulation. Saturday's program will feature talks from some international colleagues. Workshop offerings include sessions on Airway Management; Fiberoptic Techniques; Pain Management; CPR/ Intraosseous; Echocardiography; Using your Computer and the Internet; and Investigating Alternative Careers - What Are My Strengths? High quality poster presentations of clinical and laboratory work will be another feature, and will include a moderated poster-discussion session. You won't want to miss Sunday morning's Baxter Breakfast Establishing a Pediatric Sedation Service: "Take it on the road" versus "Build it and they will come" The ever-popular audience response system will be utilized to give participants instant information on practice trends.

The classic Spanish Mediterranean style of The Pointe Hilton Resort at Squaw Peak sets an ambiance of casual elegance. With the addition of the Hole in the Wall River Ranch, Squaw Peak captures the true authentic spirit of the spectacular Southwestern Region. The Pointe Hilton Resort at Squaw Peak offers spectacular meeting and function facilities, and distinctive dining and entertainment options. Leisure amenities include recreation at the Hole in the Wall River Ranch featuring Cactus Rock Lazy River Tube Float, 18-Hole Putting Course, Sports Pool for Water Volleyball and Water Basketball, a PGA Championship Golf Course at Lookout Mountain, and much more.

Camp Coyote offers action-packed days of themed activities for children, ages 4 to 12. You may choose to register children for all day or individual Coyote Camp events.

A Mexican Fiesta Buffet will be held on Saturday night, with a special children's buffet and set-up. There will be dancing to a hot "Salsa Band", and the attire for the evening is casual.

Foreign Colleagues Available for Visit

The SPA is fortunate to have the following anesthesiologists for the 1998 Winter Meeting program. Drs. Katsuyuki Miyasaka (Japan), Suzanne C. Ullyot (Canada) and Douglas S. Arthur (UK). They are available to visit your hospital either before or after the meeting dates of February 12-16, 1998. Your department would be responsible for the difference in airfare and travel expenses between your city and Phoenix. To take advantage of this opportunity, contact Stewart Hinckley at the SPA office (804) 282-9780, Fax (804) 282-0090; and Email [SocietyHQ@compuserve.com].

Scheduling will be on a first-come, first served basis.

Thursday, February 12, 1998

3:00 - 7:00 pm	Meeting, Board of Directors - SPA
9:00 am-4:00 pm	Meeting, Executive Committee, AAP,
	Section on Anesthesiology
3:00 - 6:00 pm	Early Registration
6:00 - 8:00 pm	Welcome Reception

Friday, February 13, 1998

Friday, Feb	ruary 13, 1998				
7:00 - 7:50 am 7:50 - 8:00 am	Continental Breakfast with Exhibitors Welcome				
8:00 - 10:30 am 8:00 am 8:30 am 9:00 am	Coming Soon to an OR Near You Monitoring and Managing Your Ventilator to Optimize Heart & Lung Function Liquid Ventilation in the OR and ICU Automated Anesthesia Record Systems— How Do They Work, How Do I Choose?				
9:30 am	Monitoring the Brain/Spinal Cord to Achieve Better Neurological Outcome				
10:00 am	Questions and Discussion				
10:30 - 11:00 am	Break / Exhibitors / Scientific Posters				
1:00 am - 1:00 pm	Oral Abstract Presentations				
2:00 - 3:30 pm	LIVE INTERACTIVE Pediatric Anesthesia Crisis/Disaster Simulation				
4:00 - 6:00 pm	Workshops AI) LMA, Lightwands, and other Airway Techniques A2) Fiberoptic Techniques C) Pediatric CPR and Intraosseous Infusions EI) Echocardiography I) Investigating Alternative Careers— What Are My Strengths? PI) Managing the Epidural Space				

6:00 - 7:00 pm

P2) Common Blocks P3) Advanced Blocks

P4) Managing Pain in the NICU

U) Using Your Computer and the Internet

Wine and Cheese Reception with Exhibitors

Power Strategies: A Workshop for Women and Mer

Saturday, February 14, 1998

7:00 - 8:00 am Continental Breakfast at the Posters
8:00 - 9:30 am Oral Abstracts
8:00 - 9:30 am Poster-Discussions
9:30 - 10:00 am Break / Exhibitors / Scientific Posters

9:30 - 10:00 am Break / Exhibitors / Scientific Posters

11:30 am - 1:30 pm Parallel Workshops (snacks provided)

AI) LMA, Lightwands, and other Airway Techniques

A2) Fiberoptic Techniques

C) Pediatric CPR and Intraosseous Infusions

E2) Advanced Echocardiography

M) Anesthesia Department Management in a Time of Limited Resources

PI) Managing the Epidural Space

P2) Common Blocks P3) Advanced Blocks

P4) Managing Pain in the NICU

P5) Setting Up a Pain Service—Academic and Private Practice Perspectives

P6) Upper and Lower Extremity Blocks

U) Using Your Computer and the Internet

Sunday, February 15, 1998

7:00 - 8:00 am

Baxter Breakfast
Establishing a Pediatric Sedation Service: "Take it on the road" versus
"Build it and they will come"

8:00 - 10:00 am
8:00 am
The Child with Palliated/Repaired Congenital Heart Disease

8:30 am Perioperative Implication of Drug Abuse in Children and Adolescents
9:00 am Current Management of Head Trauma/Increased Intracranial Pressure

9:30 am Questions and Discussion

10:30 - 11:00 am Awards Presentations

11:00 am - 12 n Pediatric Anesthesia Jeopardy

2 n Adjourn

New Members

Abengochea, Antonio, PhD, MD, San Francisco, CA Allison, C. E., MB, ChB, Amsterdam, The Netherlands Altonji, Paul F., MD, S. Glastonbury, CT Alvear, Veneranda B., MD, Mechanicsburg, PA Anshuman, Sharma, MD, Saint Louis, MO Arbogast, John W., MD, Lebanon, NH Berens, Richard, MD, Milwaukee, WI Birgenheier, James A., MD, Durango, CO Borg, Douglas Edward, MD, Ft. Worth, TX Braude, Bernard M., MB, BCh, FRCPC, North York, ON, Canada Buwei, Yu, MD, Shanghai, China Carlson, Craig L., MD, Yankton, SD Chalkiadis, George, MBBS, DA, Brunswick, VIC, Australia Challapalli, C. Azad, MD, Dyer, IN Chapman, Douglas E., MD, El Paso, TX Cheng, Susan H., MD, North Woodmere, NY Childers, Sara Jean, MD, Chicago, IL Citron, Gregg M., MD, Paradise Valley, AZ Conte, Vincent G., MD, Miami, FL Cox, W. Jerral, MD, Birmingham, AL Craddock, Mary K., MD, Chevy Chase, MD Crawford, Mark, MB, Toronto, ON, Canada Cuy, Romulo M., MD, Cherry Hill, NJ D'Souza, Michael P., MBBS, Perth, Australia Dacanay, Rhodel G., MD, San Diego, CA Darrow, Eric J., MD, PhD, Fort Worth, TX Davidson, Andrew, MBBS, Melbourne, Australia Duncan, J. Alistair, MB, FRCPC, Vernon, BC, Canada Eck, John B., MD, Durham, NC Eisner, Perry M., MD, Laguna Niguel, CA Erickson, John Peder, MD, Oak Park, IL Eriksson, L. I., , Stockholm, Sweden Esparza, Luis, MD, Tucson, AZ Faierman, Alvin, MD, Del Mar, CA Finley, John H., MD, Tucson, AZ From, Robert P., DO, Iowa City, IA Furuyama, Yasuhiko, MD, Sendai, Japan Futter, Malcolm E., MBBS, FANZCA, Auckland, New Zealand Garcia, Abelardo Eduard, MD, Garza,

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Hance, Theresa R., MD, West Columbia, SC
Hanson, Kim, MD, Seattle, WA
Hardacker, Doris M., MD, Carmel, IN
Hennessy, Maeve, MD, San Francisco, CA
Ho, Martha Cox, MD, Eden Prairie, MN
Honda, Izumi, MD, Sendai, Japan

Honkanen, Anita, MD, Lexington, MA

Garcia, Mexico

Hunt, David, MD, PhD, Riyadh, Saudi Arabia

Infosino, Andrew, MD, San Francisco, CA Jaranowski, Karen K., MD, Rochester, NY Joshi, Sanjoy, MD, Westbury, NY Kato, Masato, MD, Sendai, Japan Kazim, Robert, MD, New York, NY Kellogg, Ranndy, BS, Round Lake, IL Kim, Chong Sung, MD, Seoul, Korea Kim, Moon C., MD, Richmond, VA Krupp, Jennifer L., MD, Denver, CO Landrum, Alice L., MD, Columbia, MO Laurenti, Eliana, MD, Sao Paulo, SP, Brasil Leifheit, Thomas L., MD, Marshfield, WI Levine, Bruce D., MD, Philadelphia, PA Lewis, Keith P., MD, Boston, MA Light, Frank B., MD, Clark, NJ Loughman, E., MBBS, Kensington, NSW, Australia Lowrey, Rebekah D., MD, Rome, GA

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Marchetti, Giuliano, MD, Rome, Italy
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McManus, Michael L., , Milton, MA
Merritt, Glenn Richard, MD, Littleton, CO
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Moore, Michael W., DO, Oakland, CA
Morton, Neil S., MBChB, FRCA,

Murphy, Mike C., MD, Dallas, TX
Naik, Madhavi A., MD, Chevy Chase, MD
Nay, Peter, MBBS, FRCA, Ann Arbor, MI
Nayak, Ramesh M., MD, Wyomissing, PA
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Pediatric Anesthesiologist

Full-time employment opportunity currently available for Board Certified/ Eligible pediatric anesthesiologist. All types of pediatric anesthesiology including cardiac, neurosurgical and ambulatory anesthesia, and some pain management. Private practice which currently includes 5 anesthesiologists and 1 CRNA. Salary commensurate with experience. Reply to 9739 Fieldcrest Drive, Omaha, NE, 68114.

The University of South Alabama Hospitals, Department of Anesthesiology has vacancies for anesthesiologists with expertise in Pediatric Anesthesia. Candidates must be ABA board certified/ eligible and qualified to obtain a license to practice medicine in the state of Alabama. Fellowship training in the area of Pediatric Anesthesiology is required. Responsibilities include clinical care of pediatric and adult surgical patients, medical student teaching, and medical direction of the CRNA staff at the University of South Alabama Children's and Women's Hospital. The hospital, located in Mobile, AL near the Gulf of Mexico beaches, has a regional pediatric intensive care unit, a level III neonatal intensive care nursery, and aeromedical and neonatal transport services. Qualified applicants should send a letter of interest, curriculum vitae and three letters of reference to: F. Robert Weis, M.D., Acting Chair, Department of Anesthesiology, USA Hospitals, 2451 Fillingim Street, Mastin 602, Mobile, AL 36617. USA is an Equal Opportunity/Affirmative Action Employer.

If you know of anyone who may be interested in this opportunity and meets the qualifications, please share this information.

Continuing Medical Education Needs Assessment

The Society asks that you give consideration to topics you would like to have addressed in future educational offerings.

	Very Much	2	3	4	5				
	Very Much	· -	-	8 5	Not at All				
1	b. Would you li	ike the	meeting	to be	co-sponsored wi	h another organization (i.e., critical care, neurology, etc.)?			
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	a. Would you be	Would you be interested in separate workshops during the year?							
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	Do you like wo	rkshops	at the w	inter r	neeting?				
	3					6			

Mail / Fax to:

SPA

P.O. Box 11086 / 1910 Byrd Ave., Suite 100, Richmond, VA 23230-1086 phone (804) 282-9780 / fax (804) 282-0090 Email: SocietyHQ@compuserve.com



SPA / FAER Update

SPA/FAER New Investigator Award

Congratulations to Dr. Neil Farber, who has been awarded the SPA/FAER New Investigator Research Award for a second year. His project is on "The Role of Nitric Oxide in Modulating Volatile Anesthetic-Induced Actions on Intracerebral Microvessels".

Research Deadlines

Research Starter Grant: Awards are intended for anesthesiologists holding a faculty appointment, who are not yet ready to conduct independent research. Starter grants provide seed money to initiate a project that will advance the applicant's training and will allow the applicant to seek future additional support. Applicants should not have received previous peer-reviewed funding from any other source. Application deadline is July 31, 1998.

New Investigator Award: Awards are intended for anesthesiologists on the verge of becoming independent investigators. Although applicants must have an experienced investigator as an adviser, the project should be planned and conducted primarily by the applicant. Application deadline is November 30, 1998.

Educational Research Grants: Grants are intended to support research in anesthesia education, and proposals may include the design and evaluation of specific educational techniques and curricula, development of instruments for the prediction and evaluation of outcomes, or other original and creative investigations which have an impact on the quality of anesthesia education and care. Application deadline is July 31, and November 30, 1998.

Clinical Research Starter Grants and Fellowships are also available.

Application Guidelines are available by contacting Dr. Alan Sessler, Executive Director, FAER, Charlton Building, Mayo Clinic, 200 First Street SW, Rochester, MN 55905 or on the Internet at [http://www.asahq.org/FAER/homepage.html]. For questions call (507) 266-6866.

Membership Application



Society for Pediatric Anesthesia P.O. Box 11086, Richmond, VA 23230-1086 Phone (804) 282-9780 • Fax (804) 282-0090 Email SocietyHQ@compuserve.com

SPA MEMBERSHIP #:		PLEASE MA	KE MY MEMBERSHIP EFFECTIVE: JAN	UARY 19 OR JULY 19
Name (Last)	(Firs	st)	(MI)	□ M.D. □ D.O. □ Ph.E □ CRNA □ Other:
PREFERRED MAILING ADDRESS This	is my Home Address,	☐ This is my Business	s Address	•
CITY			STATE/COUNTRY	ZIP/POSTAL CODE
OFFICE PHONE	FAX		EMAIL	
Month	, Day , Year	TYPE OF		
DATE OF BIRTH	/ /		RIVATE UNIVERSITY GOVER	RNMENT OTHER:
HOSPITAL AFFILIATION				
ACADEMIC DEGREES AND OTHER PROFESSIONAL CERTIFICATION W/DAT	ES			
I HEREBY MAKE APPLICATION FOR:				
ACTIVE MEMBERSHIP (PHYSICIAN)				16
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				\$100.00
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INTERNATIONAL MEMBERSHIP*:				
 SPA Membership 	·			\$50.00
2. SPA membership	with subscription to	ANESTHESIA & ANA	LGESIA, includes joint membersl	hip in IARS\$160.00
* For additional information on optional joint me	mbership with the Society of 0	Cardiovascular Anesthesiolo	gists and the Society for Ambulatory Anestl	nesia contact the IARS office at (216) 642-1124.
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				e below section on Residency) \$60.00
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The Society for Pediatric Anesthesia (SPA) was founded in 1987 to promote quality perioperative care for infants and children. Membership in SPA has grown steadily to more than 4000 members. Membership consists of community-based and academic physicians who have an interest in pediatric anesthesia, as well as resident and affiliate members. The goals of SPA include:

- 1. To advance the practice of pediatric anesthesia through new knowledge
- 2. To provide educational programs on clinical, scientific, and political issues that are important to pediatric anesthesia practice
- 3. To promote scientific research in pediatric anesthesia and related disciplines
- 4. To provide a forum for exchange of ideas and knowledge among practitioners of pediatric anesthesia
- 5. To support the goals of the American Society of Anesthesiologists and the American Academy of Pediatrics

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