NJ Dental Society of Anesthesiology Newsletter

Volume 3 Issue 2 **Fall 1997**

Meeting Notice

The fall meeting of the NJDSA will be held on Wednesday October 8, 1997 at the GRAND MARQUIS on Route 9 South in Old Bridge, NJ. The presenter will be Dr. Walter Laverick who is an Assistant Professor in the Department of Anesthesia at the University of Pittsburgh School of Dental Medicine. He also has a private practice in Western Pennsylvania.
Topics to be covered are:

1. Planning for anesthetic related emergencies: intraoperative decision making.
2. Non-intubated anesthetic management of the pediatric dental patient.
3. Trouble shooting the mandibular block: alternative methods for success.
4. Interesting anesthesia cases.

There should be a great deal of pertinent information here that is applicable to general anesthesia or conscious sedation.

Reminder: Renewal of general anesthesia permits is due this year. If you do not have your 100 credits this may be your last opportunity to acquire an additional 35 credits. Also, exhibitors will be on hand, anxious to display the latest in equipment, drugs, and supplies.

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Specialty Status

The House of Delegates of the American Dental Association, meeting in Washington, DC in October, will, once again, consider the specialty status of anesthesiology in dentistry. This time the application has come from the American Society of Dentist Anesthesiologists. The current policy of the American Dental Society of Anesthesiology has been withdrawal of its previous recommendation for specialty recognition and remain publicly neutral.

What's New and How Long Will it be Around?

One doesn't have to be in practice for many years before becoming aware that the marketplace is always offering new drugs, supplies, and equipment to replace standbys to which we have become accustomed and which have served us well. Historically, in the field of anesthesiology, dozens of new inhalation agents have come to supplant ether and chloroform as well as the relaxants curare and succinylcholine; while the barbiturates are now forced to share center stage with the benzodiazepines, propofol, and ketamine. The simple gas machine is home for innumerable

monitoring devices and storage compartments for drugs and supplies. The finger, the eye, the ear, and the stethoscope have been orphaned by the electrocardioscope, the pulse oximeter, the nerve stimulator, the automatic blood pressure device, and the capnograph.

Actually, what brought this subject to mind is a discovery unearthed while cleaning out my cellar last month. It was the Lundy Rochester Model of the Heidbrink Kinet-O-Meter anesthesia machine. This head had the usual attachments for bag, vaporizer, soda lime absorber, pressure gauge and 3 flowmeters (oxygen, nitrous oxide, and carbon dioxide). It must have been some kind of a hit in its day. Want to increase the patient's respiratory rate; throw in a little CO2. Although I recall having attended lectures on this technique, I can't vouch for its popularity. I think, though, that it can be a reminder when judging the long-term value of some of the ideas and items that regularly burst upon the scene.

Samplings from the Medline

Response to intravenous midazolam sedation in general dental practice. Ellis S. ***Br Dent J*** 1996;Jun 8:180(11):417-20.

The object of this study was to grade the response of patients undergoing dental procedures utilizing intravenous midazolam sedation and to explore any relationship between the patient's preoperative anxiety assessment and the clinician's assessment of cooperation. One hundred consecutive patients aged between 18 and 58 years were studied. Results showed that it was not possible to reliably grade patient's responses and that there was a great individual variation in sensitivity to midazolam.

Methohexital infusion technique for conscious sedation. Johns FR, Ziccardi VB, and Buckley M. Department of Oral and Maxillofacial Surgery, University of Pittsburgh Medical Center. ***J Oral Maxillofac Surg*** 1996;May 54(5):578-81.

The purpose of this study was to evaluate a methohexital infusion technique for conscious sedation in oral surgical procedures. The criteria were recall, comfort, recovery, and estimate of cooperation. Sedation was obtained by the administration of 1.5 micrograms/kg fentanyl and 1 mg midazolam. An infusion of methohexital was then started using 50 micrograms/kg/min and increased, as needed, to 75 micrograms/kg/min. The average total amount of methohexital infused was 257 mg over an average time of 88 minutes. Recovery times were short and uneventful with discharge time under 35 minutes. No cardiac or respiratory side effects were observed other than a mild increase in heart rate. Surgeons reported that recall of surgical events by patients was low and cooperation high.

A comparison: the efficacy of sevoflurane-nitrous oxide or propofol-nitrous oxide for the induction or maintenance or anesthesia. Lien CA, Hemmings HC, Abalos A, Hollman C, and Kelly RE. Department of Anesthesiology, New York Hospital-Cornell Medical Center, New York. ***J Clin Anesth*** 1996;Dec 8(8):639-43.

General anesthesia was induced for 50 patients with either sevoflurane or propofol. They were maintained with 60% to 70% nitrous oxide and either sevoflurane or propofol infusion and supplemental fentanyl. The results showed that induction was slower in the sevoflurane group. However, the ease of induction and time required for emergence from anesthesia were the same in both groups. Patients in the sevoflurane group experienced nausea and vomiting more frequently.

Propofol: an alternative general anesthetic for outpatient oral surgery. Pastuovic MN, Cohen ME, and Burton RG. Oral and Maxillofacial Surgery, Naval Hospital, Great Lakes, IL.

J Oral Maxillofac Surg 1996;Aug 54(8):943-8.

Propofol and methohexital were compared for outpatient general anesthesia for oral surgery procedures. Fifty patients were randomly divided into two groups: propofol or methohexital. Propofol showed a significantly less percentage increase in diastolic pressure and heart rate than methohexital, but a greater percent of lowering diastolic blood pressure. There was no difference in the acceptance of each agent, nor did any patient have any recollection of pain with induction or recollection of the operation. Neither were there any statistically significant effects in recovery test performance. There were no complaints of postoperative complications secondary to the anesthetic.

Displacement of the endotracheal tube caused by change of head position in pediatric anesthesia: evaluation by fiberoptic bronchoscopy. Sugiyama K and Yokoyama K: Department of Anesthesia, Kagoshima University Dental Hospital, Japan. ***Anesth Analg*** 1996;Feb 82(2):251-3.

Displacement of an endotracheal tube by flexion and extension of the neck as well as placement of a tongue depressor was investigated in 10 children between the ages of 16 and 19 months by means of a fiberoptic bronchoscope. The endotracheal tube tip moved a mean distance of 0.9 cm toward the carina with flexion and 1.7 cm toward the vocal cords with extension of the neck. After placement of a tongue depressor, the tube tip, which had moved toward the vocal cords with neck extension, was displaced a mean distance of 1.2 cm toward the carina.
This study demonstrates that significant changes of head position or careless placement of a tongue depressor in small children could result in endobronchial intubation or accidental extubation.

A double-blind randomized comparison of midazolam alone and midazolam combined with ketamine for sedation of pediatric dental patients. Roelofse JA, Joubert JJ and Roelofse PG: University of Stellenbosch, Tygerberg, South Africa. ***J Oral Maxillofac Surg*** 1996;Jul 54(7):838-44

This study involved 100 children who required sedation and local anesthesia for dental procedures. The drugs, administered rectally, were either a combination of midazolam (0.35 mg/kg) and ketamine (5 mg/kg) or midazolam (1 mg/kg) alone 30 minutes before removal to the dental chair. Satisfactory sedation and anxiolysis were attained with both drugs without loss of respiratory drive or protective airway reflexes. Significantly more children receiving midazolam alone were fully awake upon admission to the recovery room and 30 minutes later. Excessive salivation occurred in 26% of the children receiving the combination of drugs compared to 14% receiving midazolam alone. Hallucinations occurred in 14% receiving the combination compared with 42% receiving midazolam alone.

Public attitudes toward oral surgery: results of a Gallop poll. Delfino J. Division of Oral Maxillofacial Surgery, St. John's Mercy Hospital, St. Louis, MO. ***J Oral Maxillofac Surg*** 1997;Jun 55(6):564-7.

The characteristics that patients valued most in anesthesia are wakefulness, insensibility to pain, rapid recovery, and procedure-specific amnesia. This supports the routine use of conscious sedation in the surgeon's office. Patients want to know about the procedure they will have, how it will be done, and what analgesic modalities are available.

Electronic and local anesthesia: a clinical comparison for operative procedures. Yap AU and Ho HC. Department of Restorative Dentistry, National University of Singapore. ***Quintessence Int*** 1996;Aug 27(8):549-53.
A survey to solicit patient's feedback on the use of electronic anesthesia was conducted. Thirty patients, who required restorations on similar teeth bilaterally, and 10 clinicians were involved.

The 2 teeth were randomly restored under either electronic or local anesthesia. Administration of electronic anesthesia was perceived to be more comfortable, but local anesthesia was perceived to be more effective; yet 93.3% of the patients still preferred electronic anesthesia and would use it again.

Four dimensions of fear of dental injections. Milgrom P, Coldwell SE, Getz T, Weinstein P and Ramsey DS. Loyola University of Chicago, School of Law, IL. ***J Am Dent Assoc*** 1997;Jun 128(6):756-66.

In 1995, students and staff at the University of Washington were surveyed regarding avoidance of dental care and fear of injections. Fear of dental injections consists of four dimensions. They are pain of injection; bodily injury; acquired disease; and to a lesser degree side effects such as inadequate anesthesia. Understanding the nature of patients' fear of injection may suggest strategies to address their concerns.

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