NEUROMUSCULAR TRANSMISSION

A-1030 Room I, 10/16/2000 2:00 PM - 4:00 PM (PS)
Rapacuronium Recovery: When Is Reversal Unnecessary? *Thomas A. Witkowski, M.D.; Richard R. Bartkowski, M.D.,Ph.D.; Richard H. Epstein, M.D., Dept. of Anesthesiology, Jefferson Medical College, Philadelphia, PA, United States.* Rapacuronium has a short duration of action with train of four recovery to 80% occurring in 34 minutes. Reversal in cases longer than 1 hr. may not be necessary.

A-1031 Room I, 10/16/2000 2:00 PM - 4:00 PM (PS)
Cisatracurium Onset at Larynx, Diaphragm Using New Forms of Surface Electromyography (EMG) *Tobias Wolf; Thomas M. Hemmerling, MD,DEAA; Christian Hanusa; Joachim Schmidt, MD; Klaus E. Jacobi, MD, Anesthesiology, University Erlangen, Erlangen, Bavaria, Germany.* New Surface laryngeal and surface diaphragmatic EMG from the back (lateral TH12) showed faster onset of NMB after cisatracurium.

A-1032 Room I, 10/16/2000 2:00 PM - 4:00 PM (PS)
Succinylcholine-Induced Hyperkalemia in Patients with Complete Spinal Cord Injuries *Kyung Yeon Yoo, M.D.; JongUn Lee, M.D.; Hak Song Kim, M.D., Anesthesiology, Chonnam National University Medical School, Kwangju, Korea.* We examined the effect of SCh on serum K+ in patients with complete cord injuries and found that vulnerable period seemed to extend from 2 wks to more than 1 yr after the injury.

Neuromuscular Transmission: Neuromuscular Blocking Agents, Antagonism & Monitoring

A-1033 Room 224–226, 10/16/2000 9:00 AM - 10:30 AM (PD)
Neuromuscular Block (NMB) after Mivacurium: Comparison of Larynx, Diaphragm, Adductor Pollicis (AP), Orbicularis Oculi (OO) and Corrugator Supercilii (CS) *Thomas M. Hemmerling, MD,DEAA; Joachim Schmidt, MD; Tobias Wolf; Christian Hanusa; Hubert Schmitt, MD, Anesthesiology, University Erlangen, Erlangen, Bavaria, Germany.* We present determination of NMB at larynx, diaphragm, AP, OO and CS.

A-1034 Room 224–226, 10/16/2000 9:00 AM - 10:30 AM (PD)
The Effect of Single Twitch and Train-of-Four Stimulation on Twitch Forces during Stable Neuromuscular Block *Gertjan van Santen, MD, PhD; Vaclav Fidler, PhD; Maarten C. Houwertjes; Wiebe M.C. Top, MD; Jan M.K.H. Wierda, MD, PhD, Anesthesiology, University Hospital, Groningen, Netherlands.* ST and T1 forces do not differ and are not affected by preceding stimuli during a stable neuromuscular block in the cat.

A-1035 Room 224–226, 10/16/2000 9:00 AM - 10:30 AM (PD)
2,6-Dichlorobenzyl Quaternaries of Tropinyl Diesters. The Functional Role of the Acid Ester Group in Neuromuscular Block *Laszlo Gyermek, M.D., Ph.D.; Chingmuh Lee, M.D.; Young-Moon Cho, Ph.D.; Nguyen B. Nguyen, B.S., Anesthesiology, Harbor UCLA Med. Ctr., Torrance, CA, United States.* Changing the glutaryl group to other acids group in 2,6-DiClBn tropinyl diesters, yields a better NMB profile than G-1-64.

A-1036 Room 224–226, 10/16/2000 9:00 AM - 10:30 AM (PD)
Search for the Optimal Quaternizing Moiety in Ultrashort Acting Neuromuscular Blocking Agents I. 2,5-Dimethoxybenzyl Quaternaries of Bis-tropinyl Diesters *Laszlo Gyermek, M.D., Ph.D.; Chingmuh Lee, M.D.; Young-Moon Cho, Ph.D.; Nguyen B. Nguyen, B.S., Anesthesiology, Harbor UCLA Med. Ctr., Torrance, CA, United States.* Introducing dimethoxybenzyl groups into tropinyl diesters is favorable for NMB action.

A-1037 Room 224–226, 10/16/2000 9:00 AM - 10:30 AM (PD)
The Ultra-Short Acting Nondepolarizing Relaxant GW280430A Undergoes Rapid Degradation by Chemical Mechanisms *M. McNulty, Ph.D.; A. Brown, Ph.D.; R. Johnson; T. Spitzer, Ph.D.; J. Savarese, M.D., Depts. of Bioanalysis and Analytical Chemistry, Glaxo Wellcome Company, Research Triangle Park, NC, United States.* The new ultra-short acting nondepolarizing relaxant GW280430A is degraded chemically by two mechanisms.

A-1038 Room 224–226, 10/16/2000 9:00 AM - 10:30 AM (PD)
Recovery Time of Cisatracurium-Induced NMB to a TOF Ratio ≥0.9 after Neostigmine Reversal *Claude Meistelman, MD; Bertrand Debaene, MD; Benoit Plaud, MD; Nathalie Casaburo, MD; Pascal Minini, Anesthesia, Brabois Hospital, Vandoeuvre-les Nancy, France.* After cisatracurium NMB, the median delay from neostigmine administration until a TOF ratio ≥0.9 was 12 minutes (range: 3-50).

A-1039 Room 224–226, 10/16/2000 9:00 AM - 10:30 AM (PD)
Early Antagonism of Neuromuscular Block: Is It Effective? *Cynthia A. Lien, MD; Matthew R. Belmont, MD; John J. Savarese, MD, Dept of Anesthesiology, Weill Medical College of Cornell University, New York, NY, United States.* Antagonism of rocuronium,cisatracurium or mivacurium-induced NMB at 10% recovery of the larynx, does not hasten full recovery of muscle strength in the larynx or adductor pollicis.

A-1040 Room 224–226, 10/16/2000 9:00 AM - 10:30 AM (PD)
A Multicenter Evaluation of the Time-Course of Action of Two Doses of Rapacuronium after Early and Late Reversal with Neostigmine *M.E. Goldberg, MD; F. Donati, MD; G. Bikhazi, MD; R. Bartkowski, MD,PhD; G.E. Larijani, PharmD, Anesthesiology, Univ of Medicine and Dentistry of NJ, Camden, NJ, United States.* Time to full recovery after rapacuronium is not significantly altered by early neostigmine administration.