NEUROMUSCULAR TRANSMISSION

Neuromuscular Transmission: Pharmacology, Monitoring & Associated Disease States

A-1003  Room I, 10/16/2000 2:00 PM - 4:00 PM  (PS)
Intramuscular Halothane and Caffeine Application Induces Local Hypermetabolism in MH-susceptible Pigs but not in Normal Pigs Martin Anetseder, MD; Michael Sachs, MD; Andreas Hoyer, MD; Edmund Hartung, MD, PhD; Norbert Roever, MD, PhD, Anesthesiology, University of Wuerzburg, Germany. Local application of a MH trigger is a promising principle for an in-vivo test for Malignant Hyperthermia.

A-1004  Room I, 10/16/2000 2:00 PM - 4:00 PM  (PS)
Local Intramuscular Application of Halothane in MH-Susceptible Pigs without Systemic Effects Martin Anetseder, MD; Michael Sachs, MD; Andreas Hoyer, MD; Edmund Hartung, MD, PhD; Norbert Roever, MD, PhD, Anesthesiology, University of Wuerzburg, Germany. Local intramuscular halothane application does not produce systemic effects but induces local hypermetabolism in MH-susceptible pigs.

A-1005  Room I, 10/16/2000 2:00 PM - 4:00 PM  (PS)
Vecuronium Induces Similar Pain and Vasodilatation as Rocuronium, but Weaker Mast Cell Activation James A. Blank, MD; Wolfgang Koppert, MD; Reinhard Sittl, MD; Sein Albrecht, MD; Martin Schmelz, MD, Dept. of Anesthesiology, Univ. Erlangen, Erlangen, Germany. Pain after injection of rocuronium is a concentration dependent effect of aminosteroids, most probably due to direct activation of nociceptors.

A-1006  Room I, 10/16/2000 2:00 PM - 4:00 PM  (PS)
Cisatracurium Neuromuscular Block at the Adductor Pollicis and the Laryngeal Adductor Muscles in Humans Marc Brennaud, MD; Claude Meistelman, MD; Benoit Plaud, MD; Laurent Brincaud, MD; Bertrand Debraine, MD, Department of Anesthesiology, Hopital de Broussais, Nancy, France. Increasing the dose of cisatracurium up to 0.2 mg/kg shorten the onset time at the laryngeal adductor muscles.

A-1007  Room I, 10/16/2000 2:00 PM - 4:00 PM  (PS)
Age Dependent Changes in the Dose–Response Relation of Cisatracurium during Propofol Anesthesia Y.E. Chee, FANZCA; Matthew T. Chan, FANZCA; Cindy Aan, MD; Tony Gin, MD, Anaesthesia and Intensive Care, Chinese University of Hong Kong, Hong Kong, Hong Kong. Neonates and infants require less cisatracurium to produce the same degree of neuromuscular block than older children and adults.

A-1008  Room I, 10/16/2000 2:00 PM - 4:00 PM  (PS)
The Time-Course of Action of Rocuronium 0.3 mg/kg in Children with or without End-Stage Renal Failure Jacques J. Driessen, MD; Eric N. Robertson, FRCA; Leo H. Booy, MD, Anesthesiology, Academic Hospital Nijmegen, Nijmegen, Netherlands. The mean recovery times after rocuronium 0.3 mg/kg in children with (n=14, 59 mo) and without (n=14, 54 mo) chronic renal failure were similar.

A-1009  Room I, 10/16/2000 2:00 PM - 4:00 PM  (PS)
Oxyhemoglobin Desaturation Following Apnea Induced by Succinylcholine and Sodium Thiopental in Volunteers John R. Fenter, MD; Tom Heier, MD, PhD; Jim Lin, MD; James E. Caldwell, MBChB, Anesthesiology, UCSF, San Francisco, CA, United States. We gave thiopental 5 mg/kg and succinylcholine 1 mg/kg to 12 preoxygened volunteers. Lowest SpO2 correlated with apnea duration and decreased below 80% in 4 subjects.

A-1010  Room I, 10/16/2000 2:00 PM - 4:00 PM  (PS)
Systemic Inflammation and Pharmacodynamics of Atracurium Heidiun Fink, MD; Peter Lutpla, MD; Ralph Bogdanski, MD; Jeerendra Martyn, MD; Manfred Bloeber, MD, Anaesthesiologie, Klinikum rechts der Isar der TUM, Munchen, Germany. Increase in α,-acid glycoprotein and not changes in ACHR expression is the possible cause for atracurium resistance during systemic inflammation.

A-1011  Room I, 10/16/2000 2:00 PM - 4:00 PM  (PS)
Evaluation of Intubating Conditions and Safety Following Rapacuronium, Succinylcholine or Placebo during Anesthesia with Alfentanil and Propofol A. Gaspar, MD, G. Minguet, MD; P. Dewandre, MD; P. Hams, MD, Dept of Anesthesiology, CHR Citadelle, Liege, Belgium. At 1 min,.tracheal intub. was facilitated by Rap. but clinically acceptable conditions were less frequently achieved than after Suc.

A-1012  Room I, 10/16/2000 2:00 PM - 4:00 PM  (PS)

A-1013  Room I, 10/16/2000 2:00 PM - 4:00 PM  (PS)
Time Course of the Breakdown in Blood of Two New Tropinyl Diester Type Neuromuscular Blocking Agents Laszlo Gyermek, M.D., Ph.D.; Nguyen B. Nguyen, B.S; Young-Moon Cho, Ph.D., Anesthesiology, Harbor UCLA Med. Ctr., Torrance, CA, United States. In contrast to Rocuronium and Mivacurium, two new nondepolarizing tropinyl diester NMB agents are very rapidly inactivated in whole blood in pigs.

A-1014  Room I, 10/16/2000 2:00 PM - 4:00 PM  (PS)
Intramuscular Versus Skin Electromyography (EMG) of the Diaphragm: Determination of the Neuromuscular Block (NMB) after Mivacurium Thomas M. Hemmerling, M.D., DEAA; Tobias Wolf; Christian Hanss; Hubert Schmitt, MD, Anesthesiology, University Erlangen, Erlangen, Bavaria, Germany. Skin EMG of the diaphragm from the back (lateral TH12) correlated well with intramuscular EMG to determine NMB.

A-1015  Room I, 10/16/2000 2:00 PM - 4:00 PM  (PS)
Requirements for Muscle Relaxants during Radical Retroperitoneal Prostatectomy Melinda A. King, M.D.; Nuntiya Sujiratratanawimol, M.D.; David R. Danielson, M.D.; Brian A. Hall, M.D.; David O. Warner, M.D., Department of Anesthesiology, Mayo Clinic and Foundation, Rochester, MN, United States. The quality of the surgical field in patients undergoing prostatectomy is good to excellent without using vecuronium.