

DAFTAR PUSTAKA

- Baillard, C., 2005. Postoperative residual neuromuscular block: a survey of management. *Br. J. Anaesth.* 95, 622–626.
- Baurain, MJ., Hoton, F., D'Hollander, AA., Cantraine, FR., 1996. Is recovery of neuromuscular transmission complete after the use of neostigmine to antagonize block produced by rocuronium, vecuronium, atracurium and pancuronium. *Br. J. Anaesth* 77, 496-499.
- Blobner, M., Eriksson, LI., Scholz, J., Motsch, J., Della Rocca, G., Prins, ME. 2010. Reversal of rocuronium-induced neuromuscular blockade with sugammadex compared with neostigmine during sevoflurane anaesthesia: results of a randomised, controlled trial. *European Journal of Anaesthesiology.* 27(10), 874-881.
- Bock, M., Klippel, K., Nitsche B, Bach, A., Martin, E., Motsch, J. 2000. Rocuronium potency and recovery characteristics during steady-state desflurane, sevoflurane, isoflurane or propofol anaesthesia. *Br J Anaesth* 84,43-47.
- Bourgain, J.L., Debaene, B., Meistelman, C., Donati, F. 1993. Respiratory mechanics in anaesthetised patients after neostigmine-atropine. A comparison between patients with and without chronic obstructive pulmonary disease. *Acta Anaesthesiol Scand.* 37, 365-69.
- Bronsert, M.R., Henderson, W.G., Monk, T.G., Richman, J.S., Nguyen, J.D., Sum-Ping, J.T., Mangione, M.P., Higley, B., Hammermeister, K.E., 2017. Intermediate-Acting Nondepolarizing Neuromuscular Blocking Agents and Risk of Postoperative 30-Day Morbidity and Mortality, and Long-term Survival. *Anesth. Analg.* 124, 1476–1483.
- Brueckmann, B., Sasaki, N., Grobara, P., Li, M.K., Woo, T., de Bie, J., Maktabi, M., Lee, J., Kwo, J., Pino, R., Sabouri, A.S., McGovern, F., Staehr-Rye, A.K., Eikermann, M., 2015. Effects of sugammadex on incidence of postoperative residual neuromuscular blockade: a randomized, controlled study. *Br. J. Anaesth.* 115, 743–751.
- Brull, S.J., Kopman, A.F., 2017. Current Status of Neuromuscular Reversal and Monitoring Challenges and Opportunities. *Anesthesiol. J. Am. Soc. Anesthesiol.* 126, 173–190.
- Bulka, C.M., Terekhov, M.A., Martin, B.J., Dmochowski, R.R., Hayes, R.M., Ehrenfeld, J.M., 2016. Nondepolarizing neuromuscular blocking agents, reversal, and risk of postoperative pneumonia. *Anesthesiol. J. Am. Soc. Anesthesiol.* 125, 647–655.
- Butterly, A., Bittner, E.A., George, E., Sandberg, W.S., Eikermann, M., Schmidt, U., 2010. Postoperative residual curarization from intermediate-acting neuromuscular blocking agents delays recovery room discharge. *Br. J. Anaesth.* 105, 304–309.
- Butterworth, JF., Mackey, DC., Wasnick, JD., 2013. *Morgan & Mikhail's Clinical anesthesiology.* 5th ed. New york: McGraw Hill.
- Caldwell, J.E., Robertson, E.N., Baird, W.L.M., 1986. Antagonism of profound neuromuscular blockade induced by vecuronium or atracurium: Comparison of Neostigmine with Edrophonium. *Br. J. Anaesth.* 58, 1285–1289.

- Caldwell, J.E., 1995. Reversal of residual neuromuscular block with neostigmine at one to four hours after a single intubating dose of vecuronium. *Anesth Analg.* 80(6), 1168-1174.
- Cheng, C.-R., Sessler, D.I., Apfel, C.C., 2005. Does neostigmine administration produce a clinically important increase in postoperative nausea and vomiting? *Anesth. Analg.* 101, 1349.
- Claudius, C., Skovgaard, L.T., Viby-Mogensen, J., 2009. Is the performance of acceleromyography improved with preload and normalization? A comparison with mechanomyography. *Anesthesiology.* 110,1261–70.
- Cooper, A.L., Leigh, J.M., Tring, I.C., 1989. Admissions to the intensive care unit after complications of anaesthetic techniques over 10 years. *Anaesthesia* 44, 953–958.
- Debaene, B., Plaud, B., Dilly, MP., Donati, F. 2003. Residual Paralysis in the PACU after a Single Intubating Dose of Nondepolarizing Muscle Relaxant with an Intermediate Duration of Action. *Anesthesiology.* 98,1042–8.
- Di M., Han Y., Yang Z., Liu H., Ye X., Lai H., Li J., ShangGuan W., Lian Q. 2017. Tracheal extubation in deeply anesthized pediatric patients after tonsillectomy: a comparison of high-concentration sevoflurane alone and low-concentration sevoflurane in combination with dexmedetomidine premedication. *BMC Anesthesiol.* 17:28.
- Doi, M., Ikeda, K., others, 1987. Respiratory effects of sevoflurane. *Anesth. Analg.* 66, 241–244.
- Donati, F., 2000. Neuromuscular blocking drugs for the new millennium: current practice, future trends—comparative pharmacology of neuromuscular blocking drugs. *Anesth. Analg.* 90, S2–S6.
- Dubovoy, T., Housey, M., Devine, S., Kheterpal, S., 2016. Observational study on patterns of neuromuscular blockade reversal. *BMC Anesthesiol.* 16.
- Eikermann, M., Groeben, H., Hüsing, J., Peters, J., 2003. Accelerometry of adductor pollicis muscle predicts recovery of respiratory function from neuromuscular blockade. *Anesthesiol. J. Am. Soc. Anesthesiol.* 98, 1333–1337.
- Eikermann, M., Fassbender, P., Malhotra, A., Takahashi, M., Kubo, S., Jordan, A.S., Gautam, S., White, D.P., Chamberlin, N.L., 2007. Unwarranted Administration of Acetylcholinesterase Inhibitors Can Impair Genioglossus and Diaphragm Muscle Function. *Anesthesiology.* 107, 621–629.
- Fisher, D.M., Castagnoli, K., Miller, R.D. 1985. Vecuronium kinetics and dynamics in anesthetized infants and children. *Clin Pharmacol Ther.* 37,402-406.
- Fortier, L.-P., McKeen, D., Turner, K., de Médicis, É., Warriner, B., Jones, P.M., Chaput, A., Pouliot, J.-F., Galarneau, A., 2015. The RECITE Study: A Canadian Prospective, Multicenter Study of the Incidence and Severity of Residual Neuromuscular Blockade. *Anesth. Analg.* 121, 366–372.
- Fuchs-Buder, T., Meistelman, C., Alla, F., Grandjean, A., Wuthrich, Y., et al., 2010. Antagonism of Low Degrees of Atracurium-induced Neuromuscular Blockade Dose–Effect Relationship for Neostigmine. *Anesthesiology.* 112(1), 34-40.
- Geldner, G., Niskanen, M., Laurila, P., Mizikov, V., Hübner, M., Beck, G., Rietbergen, H., Nicolayenko, E. 2012. A randomised controlled trial comparing sugammadex and neostigmine at different depths of neuromuscular blockade in patients undergoing laparoscopic surgery. *Anaesthesia.* Sep 67(9), 991-8.
- Goldhill, D.R., Wainwright, A.P., Stuart, C.S., Flynn, P.J., 1989. Neostigmine after spontaneous recovery from neuromuscular blockade. Effect on depth of

- blockade monitored with train-of-four and tetanic stimuli. *Anaesthesia*. 44, 293–9
- Grayling, M., Sweeney, B.P., 2007. Recovery from neuromuscular blockade: a survey of practice. *Anaesthesia*. 62, 806–809.
- Grosse-Sundrup, M., Henneman, J.P., Sandberg, W.S., Bateman, B.T., Uribe, J.V., Nguyen, N.T., Ehrenfeld, J.M., Martinez, E.A., Kurth, T., Eikermann, M., 2012. Intermediate acting non-depolarizing neuromuscular blocking agents and risk of postoperative respiratory complications: prospective propensity score matched cohort study. *BMJ* 345, e6329–e6329.
- Hahn, S., 2012. Understanding noninferiority trials. *Korean J Pediatr*. 55(11), 403–407.
- Hazizaj, A.; Hatija, A. 2006. Bronchospasm caused by neostigmine. *Eur J of Anaesthesiology*. 23(1), 85–86.
- Heier, T., Caldwell, JE., Feiner, JR., John, R., Liu, L., Ward, T., Wright, PM., 2010. Relationship between normalized adductor pollicis train-of four ratio and manifestations of residual neuromuscular block: a study using acceleromyography during near steady-state concentrations of mivacurium. *Anesthesiology*. 113, 825–32.
- Helbo-Hansen, HS., Bang, U., Nielson, HK., Skovgaard, LT., 1992. The accuracy of train of four monitoring at various stimulation currents. *Anesthesiology*. 76, 199–203.
- Herbstreit, F., Peters, J., Eikermann, M., 2009. Impaired Upper Airway Integrity by Residual Neuromuscular Blockade. *Anesthesiology*. 110, 1253–60.
- Herbstreit, F., Zigran, D., Ochterbeck, C., Peters, J., Eikermann, M., 2010. Neostigmine/glycopyrrolate administered after recovery from neuromuscular block increases upper airway collapsibility by decreasing genioglossus muscle activity in response to negative pharyngeal pressure. *Anesthesiology*. 113, 1280–8.
- Jeevendra Martyn, JA., 2015. Neuromuscular Physiology and Pharmacology. In: Miller, R.D. ed., *Miller's Anesthesia*. 8th ed. Philadelphia, PA: Elsevier/Saunders. h. 423–443.
- Kajal, S., Dhankhar, M., Mukherjee, M., et al., 2016. Evaluation of Low Doses of Neostigmine for Reversal of Residual Neuromuscular Blockade. *J Anesth Crit Care*. Open Access. 4(3), 00137.
- Kaufhold, N., Schaller, S.J., Stäubli, C.G., Baumüller, E., Ulm, K., Blobner, M., Fink, H., 2016. Sugammadex and neostigmine dose-finding study for reversal of residual neuromuscular block at a train-of-four ratio of 0.2 (SUNDRO20). *Br. J. Anaesth*. 116, 233–240.
- Kim, K.S., Cheong, M.A., Lee, H.J., Lee, J.M., 2004. Tactile Assessment for the Reversibility of Rocuronium-Induced Neuromuscular Blockade During Propofol or Sevoflurane Anesthesia: *Anesth. Analg*. 99, 1080–1085.
- Kopman, A.F., Yee, PS., Neuman, GG., 1997. Correlation of the train-of four fade ratio with clinical signs and symptoms of residual curarization in awake volunteers. *Anesthesiology*. 86, 765–71.
- Kopman, A.F., Zank, LM., Ng, J., Neuman, GG., 2004. Antagonism of cisatracurium and rocuronium block at a tactile train-of-four count of 2: should quantitative assessment of neuromuscular function Be mandatory? *Anesth Analg*. 98, 102–6.
- Kopman, A.F., 2010. Managing Neuromuscular Block Where Are the Guidelines. *Anesth Analg*. July 11(1).
- Kopman, A.F., 2016. Residual Neuromuscular Blockade and Adverse Postoperative Outcomes: An Update. *Curr Anesthesiol Rep*. 6, 178–184.

- Kotake, Y., Ochiai, R., Suzuki, T., Ogawa, S., Takagi, S., Ozaki, M., Nakatsuka, I., Takeda, J., 2013. Reversal with Sugammadex in the Absence of Monitoring Did Not Preclude Residual Neuromuscular Block. *Anesth Analg.* 117, 345–351.
- Lemmens, H.J., El-Orbany, M.I., Berry, J., Morte, J.B Jr., Martin, G., 2010. Reversal of profound vecuronium-induced neuromuscular block under sevoflurane anesthesia: Sugammadex versus neostigmine. *BMC Anesthesiol.* 10, 15.
- Lowry, D.W., Rajinder K. Mirakhur, R.K., McCarthy, G.J., Carroll, M.T., McCourt, K.C. 1998. Neuromuscular Effects of Rocuronium During Sevoflurane, Isoflurane, and Intravenous Anesthesia. *Anesth Analg.* 87,936-940.
- Meyer, M.J., Bateman, B.T., Kurth, T., Eikermann, M., 2013. Neostigmine reversal doesn't improve postoperative respiratory safety. *BMJ.* 346, f1460.
- McLean, D.J., Diaz-Gil, D., Farhan, H.N., Ladha, K.S., Kurth, T., Eikermann, M., 2015. Dose-dependent association between intermediate-acting neuromuscular-blocking agents and postoperative respiratory complications. *J. Am. Soc. Anesthesiol.* 122, 1201–1213.
- Murphy, G.S., Szokol, J.W., Franklin, M., Marymont, J.H., Avram, M.J., Vender, J.S., 2004. Postanesthesia care unit recovery times and neuromuscular blocking drugs: A prospective study of orthopedic surgical patients randomized to receive pancuronium or rocuronium. *Anesth. Analg.* 98, 193–200.
- Murphy, G.S., Szokol, J.W., Marymont, J.H., Franklin, M., Avram, M.J., Vender, J.S., 2005. Residual Paralysis at the Time of Tracheal Extubation. *Anesth. Analg.* 100, 1840–1845.
- Murphy, G.S., Szokol, J.W., Marymont, J.H., Greenberg, S.B., Avram, M.J., Vender, J.S., 2008. Residual Neuromuscular Blockade and Critical Respiratory Events in the Postanesthesia Care Unit. *Anesth. Analg.* 107, 130–137.
- Murphy, G.S., Szokol, J.W., Avram, M.J., Greenberg, S.B., Marymont, J.H., Vender, J.S., Gray, J., Landry, E., Gupta, D.K., 2011. Intraoperative acceleromyography monitoring reduces symptoms of muscle weakness and improves quality of recovery in the early postoperative period. *Anesthesiology.* 115, 946–54.
- Murphy, G.S., De Boer, H.D., Eriksson, L.I., Miller, R.D., 2015. Reversal (Antagonism) of Neuromuscular Blockade. In: Miller, R.D. ed., *Miller's Anesthesia*. 8th ed. Philadelphia, PA: Elsevier/Saunders. h. 995-1027
- Murphy, G.S., Szokol, J.W., Avram, M.J., Greenberg, S.B., Shear, T.D., Deshur, M.A., Benson, J., Newmark, R.L., Maher, C.E., 2018. Neostigmine Administration after Spontaneous Recovery to a Train-of-Four Ratio of 0.9 to 1.0: A Randomized Controlled Trial of the Effect on Neuromuscular and Clinical Recovery. *Anesthesiology.* 128, 27-37.
- Naguib, M., Kopman, A.F., Ensor, J.E., 2007. Neuromuscular monitoring and postoperative residual curarisation: a meta-analysis. *Br J Anaesth.* 98(3), 302-316.
- Naguib, M., Kopman, A.F., Lien, C.A., Hunter, J.M., Lopez, A., Brull, S.J., 2010. A survey of current management of neuromuscular block in the United States and Europe. *Anesth. Analg.* 111, 110–119.
- Naguib, M., Lien, C.A., Meistelman, C., 2015. Pharmacology of Neuromuscular Blocking Drugs. In: Miller, R.D. ed., *Miller's Anesthesia*. 8th ed. Philadelphia, PA: Elsevier/Saunders. h. 958-994.
- Naguib, M., Brull, S.J., Kopman, A.F., Hunter, J.F., Fülesdi, B., Arkes, H.R., Elstein, A., Todd, M.M., and Johnson, K.B., 2018. Consensus Statement on Perioperative Use of Neuromuscular Monitoring. *Anesth Analg.* 127, 71–80.

- Nemes, R., Fulesdi, B., Pongracz, A., Asztalos, I., SzaboMaak, Z., Lengyel, S., and Tassonyi, E., 2017. Impact of reversal strategies on the incidence of postoperative residual paralysis after rocuronium relaxation without neuromuscular monitoring: A partially randomised placebo-controlled trial. *Eur J Anaesthesiol.* 34,609–616
- Stoelting RK, Flood P, Rathmell JP, Shafer SF., 2015. Stoelting's Handbook of Pharmacology and Physiology in Anesthetic Practice. 3rd ed. Philadelphia, PA: Wolters Kluwer Health. h. 232-248.
- Sturgill, E.L., and Campbell, NF., 2015. Neuromuscular Blocking and Reversal Agents. In: Barash, P.G., Cullen, B.F., Stoelting, R.K. ed. *Basic Clinical Anesthesia*. 5th ed. New York: Springer. h. 151-158.
- Suzuki, T., Kitajima, O., Ueda, K., et al: 2011. Reversibility of rocuronium induced profound neuromuscular block with sugammadex in younger and older patients. *Br J Anaesth.* 106, 823-826.
- Thilen, SR., Hansen, BE., Ramaiah, R., Kent, CD., Treggiari, MM., Bhananker, SM., 2012. Intraoperative neuromuscular monitoring site and residual paralysis. *Anesthesiology.* 117, 964–72.
- Thilen, SR., Bhananker, SM., 2016. Qualitative Neuromuscular Monitoring How to Optimize the Use Peripheral Nerve Stimulator to Reduce the Risk of Residual Neuromuscular Blockade. *Curr Anesthesiol Rep.* 6, 164–169.
- Tiret, L., Desmonts, J.M., Hatton, F., Vourc'h, G., 1986. Complications associated with anaesthesia—prospective survey in France. *Can. J. Anesth.* 33, 336–344.
- Tramèr, MR., Fuchs-Buder, T. 1999. Omitting antagonism of neuromuscular block: effect on postoperative nausea and vomiting and risk of residual paralysis. A systematic review. *Br J Anaesth.* 82, 379-386.
- Viby-Mogensen, J., dan Claudius, C., 2015. Neuromuscular Monitoring. In: Miller, R.D. ed., *Miller's Anesthesia*. 8th ed. Philadelphia, PA: Elsevier/Saunders. h. 1604-1621.
- Rodney, G., Ball, DR., 2015. Not just monitoring a strategy for managing neuromuscular blockade. *Anaesthesia.* 70, 1105–18.
- Vieira, R.L.R., Vieira, J.E., 2011. What Rules of Thumb Do Clinicians Use to Decide Whether to Antagonize Nondepolarizing Neuromuscular Blocking Drugs? *Anesth. Analg.* 113, 1192–1196.
- Walker, E., and Nowacki, AS., 2010. Understanding Equivalence and Noninferiority Testing. *J Gen Intern Med.* 26(2), 192–6.