

DAFTAR PUSTAKA

- Adkinson Jr, N.F., Bochner, B.S., Burks, A.W., Busse, W.W., Holgate, S.T., Lemanske, R.F. and O'Hehir, R.E., 2013. *Middleton's allergy E-Book: Principles and practice*. Elsevier Health Sciences.
- Al-Qudah, M. 2014. Efficacy of lidocaine with or without epinephrine in rigid nasal endoscopy. *American Journal of Rhinology & Allergy*, 28(6), 520-522.
- Arora, P., Sharma, S., dan Garg, S. 2002. Permeability issues in nasal drug delivery. *Drug discovery today*, 7(18), 967-975.
- Behl, C. R., Pimplaskar, H. K., Sileno, A. P., Demeireles, J., and Romeo, V. D. 1998. Effects of physicochemical properties and other factors on systemic nasal drug delivery. *Advanced drug delivery reviews*, 29(1-2), 89-116.
- Bill, T. J., Clayman, M. A., Morgan, R. F., and Gampper, T. J. 2004. Lidocaine metabolism pathophysiology, drug interactions, and surgical implications. *Aesthetic surgery journal*, 24(4), 307-311.
- Davis, S. S., and Illum, L. 2003. Absorption enhancers for nasal drug delivery. *Clinical pharmacokinetics*, 42(13), 1107-1128.
- Djupesland, P. G., and Skretting, A. 2012. Nasal deposition and clearance in man: comparison of a bidirectional powder device and a traditional liquid spray pump. *Journal of aerosol medicine and pulmonary drug delivery*, 25(5), 280-289.
- Berger, G., Finkelstein, Y., Ophir, D. and Landsberg, R., 2009. Old and new aspects of middle turbinate histopathology. *Otolaryngology—Head and Neck Surgery*, 140(1), pp.48-54.
- Bourolias, C., Gkotsis, A., Kontaxakis, A., and Tsoukarelis, P. 2010. Lidocaine spray vs tetracaine solution for transnasal fiber-optic laryngoscopy. *American journal of otolaryngology*, 31(2), 114-116.
- Coucke, D., Vervaet, C., Foreman, P., Adriaenssens, P., Carleer, R., and Remon, J. P. 2009. Effect on the nasal bioavailability of co-processing drug and bioadhesive carrier via spray-drying. *International journal of pharmaceutics*, 379(1), 67-71.
- Dissanayake, D. W. N., and Dissanayake, D. M. D. 2016. The physiology of pain: an update and review of clinical relevance. *Journal of the Ceylon College of Physicians*, 46(1-2).
- Dondeti, P., Zia, H., and Needham, T. E. 1995. In vivo evaluation of spray formulations of human insulin for nasal delivery. *International journal of pharmaceutics*, 122(1-2), 91-105.
- Douglas, R., Hawke, L. and Wormald, P.J., 2006. Topical anaesthesia before nasendoscopy: a randomized controlled trial of co-phenylcaine compared with lignocaine. *Clinical Otolaryngology*, 31(1), pp.33-35.
- Ducharme, J. and Matheson, K., 2003. What is the best topical anesthetic for nasogastric insertion? A comparison of lidocaine gel, lidocaine spray, and atomized cocaine. *Journal of Emergency Nursing*, 29(5), pp.427-430.
- Efthimiou, J., Higenbottam, T., Holt, D. and Cochrane, G.M., 1982. Plasma concentrations of lignocaine during fiberoptic bronchoscopy. *Thorax*, 37(1), pp.68-71.
- Ellison, D. L. 2017. Physiology of pain. *Critical Care Nursing Clinics*, 29(4), 397-406.
- Goh, L.C., Arvin, B., Zulkiflee, A.B. and Prepageran, N., 2018. Lidocaine/phenylephrine nasal spray versus nebulization prior to nasoendoscopy: a randomized controlled trial. *Otolaryngology—Head and Neck Surgery*, 159(4), pp.783-788.
- Harris, D. M., Martin, L. E., Harrison, C., and Jack, D. 1974. The effect of intra-nasal beclomethasone dipropionate on adrenal function. *Clinical & Experimental Allergy*, 4(3), 291-294.

- Hu, C.T., 2008. Endoscopic-guided versus cotton-tipped applicator methods of nasal anesthesia for transnasal esophagogastroduodenoscopy: A randomized, prospective, controlled study. *The American Journal of Gastroenterology*, 103(5), p.1114.
- Hawker, G. A., Mian, S., Kendzerska, T., and French, M. 2011. Measures of adult pain: Visual analog scale for pain. *Arthritis care & research*, 63(S11), S240-S252.
- Hwang, P. H., and Abdolkhani, A. 2003. Embryology, anatomy and physiology of the nose and paranasal sinuses. *Ballenger's Otorhinolaryngology Head and Neck Surgery*, 17, 2009-455.
- Illum, L. 2000. Transport of drugs from the nasal cavity to the central nervous system. *European journal of pharmaceutical sciences*, 11(1), 1-18.
- Illum, L. 2003. Nasal drug delivery—possibilities, problems and solutions. *Journal of controlled release*, 87(1-3), 187-198.
- Ishikawa, F., Murano, M., Hiraishi, M., Yamaguchi, T., Tamai, I., and Tsuji, A. 2002. Insoluble powder formulation as an effective nasal drug delivery system. *Pharmaceutical research*, 19(8), 1097-1104.
- Joy, A. K., Philip, A., Mathews, S. S., and Albert, R. R. A. 2020. Transnasal Flexible Laryngoscopy Using Different Topical Preparations and Methods of Application-A Randomized Study. *Journal of Voice*.
- Julious, S. A. 2005. Sample size of 12 per group rule of thumb for a pilot study. *Pharmaceutical Statistics: The Journal of Applied Statistics in the Pharmaceutical Industry*, 4(4), 287-291.
- Junginger, H. E. 1991. Mucoadhesive hydrogels. *Pharmazeutische Industrie*, 53(11), 1056-1065.
- Katzung, B.G., Masters, S.B. and Trevor, A.J. 2017. *Basic and Clinical Pharmacology 14th Edition*. McGraw Hill Professional.
- Kublik, H., and Vidgren, M. T. 1998. Nasal delivery systems and their effect on deposition and absorption. *Advanced drug delivery reviews*, 29(1-2), 157-177.
- Kumar, A., Pandey, A.N. and Jain, S.K., 2016. Nasal-nanotechnology: revolution for efficient therapeutics delivery. *Drug delivery*, 23(3), pp.671-683.
- Kushwaha, S.K., Keshari, R.K. and Rai, A.K., 2011. Advances in nasal trans-mucosal drug delivery. *Journal of Applied Pharmaceutical Science*, 1(7), p.21.
- Loukides, S., Katsoulis, K., Tsarpalis, K., Panagou, P. and Kalogeropoulos, N., 2000. Serum concentrations of lignocaine before, during and after fiberoptic bronchoscopy. *Respiration*, 67(1), pp.13-17
- McMartin, C., Hutchinson, L. E., Hyde, R., and Peters, G. E. 1987. Analysis of structural requirements for the absorption of drugs and macromolecules from the nasal cavity. *Journal of pharmaceutical sciences*, 76(7), 535-540.
- Midwinter, K.I., Ahmed, A. and Willatt, D., 2001. A randomised trial of flexible versus rigid nasendoscopy in outpatient sinonasal examination. *Clinical Otolaryngology*, 26(4), .281-283.
- Morimoto, K., Katsumata, H., Yabuta, T., Iwanaga, K., Kakemi, M., Tabata, Y., and Ikada, Y. 2001. Evaluation of gelatin microspheres for nasal and intramuscular administrations of salmon calcitonin. *European Journal of Pharmaceutical Sciences*, 13(2), 179-185.
- Mygind, N., and Dahl, R. 1998. Anatomy, physiology and function of the nasal cavities in health and disease. *Advanced drug delivery reviews*, 29(1-2), 3-12.
- Neel, G.S., Kau, R.L., Bansberg, S.F. and Lal, D., 2017. Comparison of 3 mm versus 4 mm rigid endoscope in diagnostic nasal endoscopy. *World Journal of Otorhinolaryngology-Head and Neck Surgery*, 3(1), pp.32-36.
- Newman, S. P., Moren, F., and Clarke, S. W. (1988). Deposition pattern of nasal sprays in man. *Rhinology*, 26(2), 111.

- Noorily, A.D., Noorily, S.H. and Otto, R.A., 1995. Cocaine, lidocaine, tetracaine: which is best for topical nasal anesthesia? *Anesthesia & Analgesia*, 81(4), pp.724-727.
- Nvdahl, P.A. and Axelsson, K., 1988. Venous blood concentration of lidocaine after nasopharyngeal application of 2% lidocaine gel. *Acta Anaesthesiologica Scandinavica*, 32(2), pp.135-139.
- Özkırış, M., Aydın, R., Gencer, Z.K. and Saydam, L., 2014. Comparison of topical anesthetic effects of lidocaine, prilocaine, ropivacaine, and bupivacaine in transnasal fiberoptic nasopharyngolaryngoscopy. *American Journal of Rhinology & Allergy*, 28(3), pp.e141-e143.
- Pereswetoff-Morath, L. 1998. Microspheres as nasal drug delivery systems. *Advanced drug delivery reviews*, 29(1-2), 185-194.
- Pontiroli, A. E., Calderara, A., and Pozza, G. 1989. Intranasal Drug Delivery Potential Advantages and Limitations from. *Clin. Pharmacokinet*, 17(5), 299-307.
- Pothier, D. D., Hall, C. E. J., Gillett, S., and Nankivell, P. 2007. Timing of co-phenylcaine administration before rigid nasendoscopy: a randomized, controlled trial. *The Journal of laryngology and otology*, 121(3), 228.
- Quadir, M., Zia, H., and Needham, T. E. 1999. Toxicological implications of nasal formulations. *Drug Delivery*, 6(4), 227-242.
- Randell, T., Yli-Hankala, A., Valli, H. and Lindgren, L., 1992. Topical anaesthesia of the nasal mucosa for fibreoptic airway endoscopy. *British Journal of Anaesthesia*, 68(2), pp.164-167.
- Reed, A.P., 1991. Fiberoptic airway endoscopy in anesthesia and critical care: By Andranik Ovassapian. Raven Press, New York, NY. 1990. *Journal of Cardiothoracic and Vascular Anesthesia*, 5(2), pp.189-190.
- Şahin, M.İ., Kökoğlu, K., Güleç, Ş., Ketenci, İ. and Ünlü, Y., 2017. Premedication Methods in Nasal Endoscopy: A Prospective, Randomized, Double-Blind Study. *Clinical and Experimental Otorhinolaryngology*, 10(2), p.158.
- Scavone, J. M., Greenblatt, D. J., and Fraser, D. G. 1989. The bioavailability of intranasal lignocaine. *British journal of clinical pharmacology*, 28(6), 722-724.
- Sharma, S. C., Rama, P. R., Miller, G. L., Coccio, E. B., and Coulter, L. J. 1996. Systemic absorption and toxicity from topically administered lidocaine during transesophageal echocardiography. *Journal of the American Society of Echocardiography*, 9(5), 710-711.
- Shimoda, N., Maitani, Y., Machida, Y., and Nagai, T. 1995. Effects of dose, pH and osmolarity on intranasal absorption of recombinant human erythropoietin in rats. *Biological and Pharmaceutical Bulletin*, 18(5), 734-739.
- Singh, V., Brockbank, M.J. and Todd, G.B., 1997. Flexible transnasal endoscopy: is local anaesthetic necessary? *The Journal of Laryngology & Otology*, 111(7), pp.616-618.
- Shafi, M., Shaikh, A.A. and Ahmed, J., 2015. Flexible Fiberoptic Naso-pharyngolaryngoscopy: Indications and Outcome. *Journal of Surgery Pakistan (International)*, 20, p.2-4.
- Striebel, H. W., Oelmann, T., Spies, C., Rieger, A., and Schwagmeier, R. 1996. Patient-controlled intranasal analgesia: a method for noninvasive postoperative pain management. *Anesthesia & Analgesia*, 83(3), 548-551.
- Talegaonkar, S., and Mishra, P. R. 2004. Intranasal delivery: An approach to bypass the blood brain barrier. *Indian journal of pharmacology*, 36(3), 140.
- Thanaviratananich, S., Kaen, P. K., Suetrong, S., and Thanaviratananich, S. (2011). The efficacy of 4% lidocaine with 3% ephedrine used on nasal packs or as a nasal spray for pain relief in nasal endoscopy. *Asian Biomedicine*, 5(6), 849-854.



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**STUDI PILOT PERBEDAAN ANTARA PEMBERIAN GEL LIDOKAIN DAN XYLOCAINE SPRAY
TERHADAP DERAJAT NYERI PADA
TINDAKAN NASOENDOSKOPI KAKU**

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- Uri, O., Yosefov, L., Haim, A., Behrbalk, E. and Halpern, P., 2011. Lidocaine gel as an anesthetic protocol for nasogastric tube insertion in the ED. *The American Journal of Emergency Medicine*, 29(4), pp.386-390.
- Wadell, C. 2002. *Nasal drug delivery: in vitro studies on factors influencing permeability and implications on absorption* (Doctoral dissertation, Acta Universitatis Upsaliensis).
- Walshe, P., Rowley, H., Hone, S., and Timon, C. 2002. Co-phenylcaine as an alternative to Brompton's solution in rigid nasendoscopy: a pilot study. *Journal of clinical pharmacy and therapeutics*, 27(3), 185-187.
- Webb, A.R., Woodhead, M.A., Dalton, H.R., Grigg, J.A. and Millard, F.J., 1989. Topical nasal anaesthesia for fiberoptic bronchoscopy: patients' preference for lignocaine gel. *Thorax*, 44(8), pp.674-675.
- Wellenstein, D.J., van der Wal, R.A., Schutte, H.W., Honings, J., van den Hoogen, F.J., Marres, H.A., Takes, R.P. and van den Broek, G.B., 2018. Topical anesthesia for endoscopic office-based procedures of the upper aerodigestive tract. *Journal of Voice*. 32(1), pp.1-15.
- Westfall, T.C. and Westfall, D.P., 2011. Neurotransmission: the autonomic and somatic motor nervous system. *Goodman and Gilman's The Pharmacological Basis of Therapeutics*, 12th ed. Edited by L Bruton. New York: McGraw Hill, pp.171-218.
- Zainudin, B.M., Rafia, M.H. and Sufarlan, A.W., 1993. Topical nasal anaesthesia for fiberoptic bronchoscopy: lignocaine spray or gel? *Singapore Medical Journal*, 34(2), pp.148-149.
- Zhu, J., Liu, J., Shen, G., Zhong, T. and Yu, X., 2018. Comparison of Efficacy Outcomes of Lidocaine Spray, Topical Lidocaine Injection, and Lidocaine General Anesthesia in Nasal Bone Fractures Surgeries: A Randomized, Controlled Trial. *Medical Science Monitor*, 24, pp.4386-4394.