

Surgical Pleth Index (SPI) Publications Reference List June 2016

PEER-REVIEWED ARTICLES

SSI, or Surgical Stress Index, was the first working name for the measurement. Therefore, this name may come up in some of the early research references.

- Ahonen J. et al.** Surgical Stress Index During Gynaecological Laparoscopy. *British Journal of Anaesth* **98**, 456-461 (2007).
- Bergmann A. et al.** Surgical Pleth Index (SPI) reduces propofol and remifentanyl consumption and shortens operational process times in outpatient anesthesia. *British Journal of Anaesth* **110(4)**, 622-8 (2013).
- Bergmann I. et al.** Remifentanyl added to sufentanil-sevoflurane anesthesia suppresses hemodynamic and metabolic stress responses to intense surgical stimuli more effectively than high-dose sufentanil-sevoflurane alone. Research article. *BMC Anesthesiology*, **15(3)** (2015)
- Bonhomme V et al.** Comparison of the Surgical Pleth Index with haemodynamic variables to assess nociception-antinociception balance during general anaesthesia. *British Journal of Anaesth* **105(5)**, 101-11 (2011).
- Chen X. et al.** Comparison of Surgical Stress Index-guided Analgesia with Standard General Anesthesia. A Pilot study. *Anesthesiology* **112**, 1175-83 (2010).
- Chen X. et al.** Correlation of Surgical Pleth Index with Stress Hormones during Propofol-Remifentanyl Anaesthesia. *The Scientific World Journal*, Volume 2012 (2012), Article ID 879158.
- Colombo R. et al.** Comparison of the Surgical Pleth Index with autonomic nervous system modulation on cardiac activity during general anaesthesia. A randomised cross-over study. *Eur J Anaesthesiol* **31**,76-84 (2014).
- Colombo R. et al.** Influence of gravitational sympathetic stimulation on the Surgical Plethysmographic Index. *Physiol Res*, **64(2)**, 183-9 (2015)
- Colombo R. et al.** Surgical Pleth Index guided analgesia blunts the intraoperative sympathetic response to laparoscopic cholecystectomy. *Minerva Anesthesiologica*, **81 (8)**, 837-845 (2015)
- Constant I. et al.** Monitoring depth of anesthesia: from consciousness to nociception. A window on subcortical brain activity. A review article. *Pediatric Anesthesia* **25**, 73-82 (2015).
- Gruenewald M. et al.** Influence of different remifentanyl concentrations on the performance of the surgical stress index to detect a standardized painful stimulus during sevoflurane anesthesia. *British Journal of Anaesth* **103(4)**, 586-93 (2009).
- Gruenewald M. et al.** Sufentanil administration guided by surgical pleth index vs standard practice during sevoflurane anaesthesia: a randomized controlled pilot study. *British Journal of Anaesth* **112(5)**, 898-905 (2014).
- Gruenewald M. et al.** Influence of nociceptive stimulation on analgesia nociception index (ANI) during propofol-remifentanyl anaesthesia. *British Journal of Anaesth* **110(6)**, 1024-30 (2013).
- Gruenewald M.** Monitoring the nociception-anti-nociception balance. *Best Practice & Research Clinical Anaesthesiology* **27**, 235-247 (2013).



- Gruenewald M.** *et al.* Measurement of the Nociceptive Balance by Analgesia Nociception Index (ANI) and Surgical Pleth Index (SPI) during Sevoflurane - Remifentanil Anaesthesia. *MINERVA ANESTESIOLOGICA EPUB ahead of print Jul 17, 2014* <http://www.minervamedica.it/en/journals/minerva-anestesiologica/article.php?cod=R02Y9999N00A140908> (2014).
- Hamunen K.** *et al.* Effect of pain on autonomic nervous system indices derived from photoplethysmography in healthy volunteers. *British Journal of Anaesth.* **108(5)**, 838-44 (2012).
- Hannivoort L. N.** *et al.* Probability to tolerate laryngoscopy and noxious stimulation response index as general indicators of the anaesthetic potency of sevoflurane, propofol and remifentanil. *British Journal of Anaesthesia*, **116(5)**: 624-31 (2016)
- Hans P.** *et al.* Effect of a fluid challenge on the Surgical Pleth Index during stable propofol-remifentanil anaesthesia, *Acta Anaesthesiol Scand* **56**, 787-796 (2012).
- Huiku M.**, *et al.* Assessment of surgical stress during general anaesthesia. *British Journal of Anaesth* **98(4)**, 447-455 (2007).
- Höcker** *et al.* Surgical stress index in response to pacemaker stimulation or atropine. *British Journal of Anaesth* **105(2)**, 150-4 (2010).
- Ilies C.** *et al.* Evaluation of the surgical stress index during spinal and general anesthesia. *British Journal of Anaesth* **105(4)**, 533-7 (2010).
- Ilies C.** *et al.* The effect of posture and anaesthetic technique on the surgical pleth index. *Anaesthesia* **67**, 508-513 (2012).
- Kallio H.** *et al.* Measurement of surgical stress and anaesthetized children. *British Journal of Anaesth* **101(3)**, 383-389 (2008).
- Korhonen I.** *et al.* Photoplethysmography and nociception. *Acta Anaesthesiol Scand* **53(8)**, 975-85 (2009).
- Ledowski T.** *et al.* Monitoring of sympathetic tone to assess postoperative pain: skin conductance vs. surgical stress index. *Anaesthesia* **64**, 727-731 (2009).
- Ledowski T.** *et al.* Monitoring of intra-operative nociception: skin conductance and surgical stress index versus stress hormone plasma levels. *Anaesthesia* **65**, 1001-1006 (2010).
- Mustola S** *et al.* Performance of Surgical Stress Index during Sevoflurane-Fentanyl Anesthesia. *Anesthesiology Research and Practice* **2010**, Article ID 810721, 5 pages, (2010).
- Mustola S** *et al.* Effect-site concentration of remifentanil attenuating surgical stress index responses to intubation of the trachea. *Anesthesia* **65**, 581-585 (2010).
- Paloheimo, M, P, J** *et al.* Autonomic nervous system state: the effect of general anesthesia and bilateral tonsillectomy after unilateral infiltration of lidocaine. *British Journal of Anaesth* **104(5)**, 587-95 (2010).
- Struys, MMR F.** *et al.* Changes in a surgical stress index in response to standardized pain stimuli during propofol-remifentanil infusion. *British Journal of Anaesth* **99(3)**, 359-367 (2007).
- Thee C.** *et al.* Reliability of the Surgical Pleth Index for assessment of postoperative pain. A pilot study. *Eur J Anaesthesiol* **32**, 44-48 (2015).
- Wennervirta J.** *et al.* Surgical Stress Index as a Measure of Nociception/Antinociception Balance During General Anesthesia. *Acta Anaesthesiol Scand* **52**, 1038-1045 (2008).

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