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Anesthesia's ultimate challenge: monitor intraoperative analgesia

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Background: Harmful effects of maintaining an excessive depth of anesthesia are well known, thus the recommendation of monitoring it. Same could happen with intraoperative analgesia, but to this day there was no way to measure it (1). Nociception Level Index (NoL™ Index) measures plethysmography variability, heart rate, galvanic skin response and temperature changes to obtain a numeric index, useful in guiding intraoperative analgesia. Values vary from 0 to 100, the desirable being keeping it between 10 and 20

Case Report:A case of a laparoscopic subtotal gastrectomy is presented. Surgery proceeded under total intravenous anesthesia: propofol and remifentanil on TCI mode. Propofol dosage was guided by BIS, and remifentanil dosage according to NoL™ values. Muscle relaxants were dosed to keep TOF between 0 and 1. Every 10 minutes, blood pressure, heart rate, BIS and NoL™ Index were measured. 30 minutes before ending surgery, paracetamol 1 g, dexketoprofen 50 mg and morphine 8 mg were delivered. Surgery lasted 3 hours. Average vital signs during intervention were: blood pressure 139/64 mmHg; heart rate 93 bpm; BIS 38. Average NoL™ Index was 8. Total doses amounted to 884 mg of propofol, 3331 mcg of remifentanil. Postoperative analgesia was intravenous paracetamol 1 g every 8 hours, alternating with dexketoprofen 50 mg. The patient VAS was under 3 for the first 12 hours after surgery, only needing morphine 4 mg as rescue analgesia on the first hour

Discussion:Inadequate analgesia seems to have serious consequences(2). Measuring balance between analgesia and painful stimuli is a fair interest. In an experimental work, NoL™ Index proved superior to separate interpretation of all the parameters that conform it (3)

References:

1-   Gruenewald M, Monitoring nociception-anti-nociception balance. Best practice & Research Clinical Anaesthesiology 2013;27:235-247

2-   Edry R. Intraoperative validation of the Nociception Level Index. A non invasive nociception monitor.Anesthesiology 2016;125(1):193

3-   Ben-Israel N:Monitoring the nociception level:A multi-parameter approach.J Clin Monit Comput 2013;27:659–68

Learning points:There is a growing interest on accurately measuring intraoperative analgesia, thus improving perioperative results, but the ideal device is yet to be determined. NoL™ Index seems a useful tool but more studies are needed to confirm this hypothesis