

complete reversal (Time at T4/T1 > 0.9: 1.11 ± 0.3 min.), Group II (9.66 ± 1.2 min.), p < 0.05. Time at extubation, sugammadex (2.07 ± 0.5)min, neostigmine (14.19 ± 2.7)min, p < 0.05. No adverse effects were reported in group I. In group II, 3 cases lasted > 20 minutes, 3 cases of bradycardia (HR decreased > 20%).

Discussion: At present, there are not trials using sugammadex at high doses in deep blockade, in paediatric population. In our study we achieved a T4/T1 > 0.9 in less time (71 vs 115 seconds) than Tufanogullari et al. with a dose of 4 mg/kg in adults.

Conclusions: Sugammadex 4 mg/kg reverses effective and safety deep neuromuscular blockade induced by rocuronium in paediatric patients over 2 years, undergoing elective surgery. This preliminary data shown sugammadex as fast and secure alternative to standard reversal by neostigmine.

References

- 1 Tufanogullari B, Klein K, White PF. Use of sugammadex to reverse rocuronium-induced neuromuscular blockade. *Anesthesiology* 2001; ASA Abstract AIII.
- 2 Plaud B, Meretoja O, Hofmockel R, et al. Reversal of rocuronium-induced neuromuscular blockade with sugammadex in paediatric and adult surgical patients. *Anesthesiology* 2009; 110:289-94.

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Behaviour of nindex index during anesthesia on pediatric patients

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Introduction: The NINDEX index is a way to measure the anesthetic depth based on the EEF, commercially available since 2008 [1]. The NINDEX algorithm develops from a development database composed by EEG registries classified according to the Kugler anesthetic depth scale. It evolves within a cyclic adjustment process, which results in consecu-

tive NINDEX versions developed over groups of data which are being more complete every day. The first and second versions of the NINDEX algorithm were developed based on adult patient registries. For the development of the 3.0 version, the development database was expanded by adding pediatric patient registries.

Objective: Evaluate the anesthetic depth and the NINDEX version 3.0 index behavior in pediatric population submitted to a deTIVA protocol. Methods A prospective observational study is done without specific therapeutic intervention in 32 pediatric patients from an average age of 7 ± 3 years old submitted to otorhinolaryngologic and general surgery with TIVA based on propofol and remifentanyl. The anesthetic induction is done with a propofol BOLO, followed by three stages of propofol infusion (according to the length of the surgery) in average 11, 8 and 6 mg/kg/h doses. The first two stages of infusion last between 10 and 11 minutes, and the third lasts until the end of the surgery. Remifentanyl is used at 0,5 mg/kg/h during the entire procedure. The NINDEX-Notebook monitor is used with 3.0.14 software version and with ECG electrodes of SWAROMED trade name positioned according to developer's instructions. Data Processing A NINDEX chart of values is built during the following moments of every control:

- Before induction (PREIND)
- After induction (POSIND)
- At first infusion change (DOSIS2)
- At second infusion change (DOSIS3)
- At the end of the infusion(CIERRE)
- After awakening (DESPERTAR)

Results: Table number 1 shows the average and standard NINDEX detours at every considered instant and figure 1 shows the corresponding graphic showing in grey the NINDEX range recommended for pediatric patients.

Conclusions: The NINDEX index ended up being reliable and safe, allowing precocious detection of anesthetic awakening. Simple to use and requires no expensive supplies. References.

References

- 1 "Descripción de tecnología, monitor NINDEX", Controles S.A y Dr. D. Cibils, 29 de abril de 2009.
- 2 "NINDEX-Notebook, Manual de Usuario", Controles S.A y Dr. D. Cibils, 28 de abril de 2011.

Table 1

PREIND	PREIND	POSIND	DOSIS2	DOSIS3	CLOSURE AWAKENING NINDEX
98	1	36	10	61	9
66	9	72	7	90	4
Number of samples					
21	30	25	17	17	32