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THIOPENTAL/SUXAMETHONIUM/ REMIFENTANIL PREMEDICATION IS SUPERIOR TO MORPHINE FOR SEMI-URGENT INTUBATION IN PRETERM INFANTS - A RANDOMIZED BLINDED INTERVENTION STUDY

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Background: No evidence based guidelines for intubation premedication are available in newborn infants. Our aim was to investigate, in a blinded RCT stratified for gestational and postnatal age, whether semi-urgent intubation is more successful with analgo-sedation and relaxation (A) than with morphine (B).

Design and methods: Preterm infants received either (A, n=17) glycopyrron 5 mikrog/kg, thiopental 2-3 mg/kg (2 mg/kg < 1000 g), suxamethonium 2 mg/kg and remifentanil 1 microg/kg or (B, n=17) atropine 0.01 mg/kg and morphine 0,3 mg/kg before nasal intubation.

Main outcome was "successful intubation" ie. Viby-Mogensen (WM) score ≤10, all subitems ≤2, and duration of procedure. Secondary measures were number of attempts, pain scores (ALPS and EDIN), EEG scoring (total and sleep wake cycling, SWC) and quantitative EEG data until 3 h after the intubation. Time-syncronized physiological parameters and serum samples for catecholamines and cortisol were obtained.

Results: The groups were similar (median, range): gestational age 27.0 (23.7-36.4) and 26.6 (23.6-35.9) weeks, birth weight 925 (474-3504) and 924 (470-2874) g, and postnatal age 51 (7-872) and 136 (5-471) hours, respectively in group A and B.

The intubation in group A was more successful (16 vs 1, p< 0.001) with shorter total duration 45 (35-153.5) vs 97 (48.5-365, p=0.031) sec, duration of last attempt 40 (32-79.5) vs 60 (45.5-93.5, p=0.034) sec and less EEG effects: total score and SWC p< 0.001 and p= 0.004, respectively.

Conclusion: Combining sedation with short-acting opioid and relaxation as premedication gives good intubation conditions with shorter cerebral depression after the procedure.

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MANAGEMENT OF ACUTE PAIN IN PAEDIATRIC EMERGENCY DEPARTMENTS: A SURVEY OF POLICIES IN ITALY

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Aims: To explore the policies of Italian paediatric emergency departments (ED) towards management of acute pain in children.

Methods: Eleven paediatric and two general hospitals with separate paediatric triage were recruited. Policies regarding pain management at time of triage and in the emergency clinical area were surveyed through a structured questionnaire. Information regarding the hospital and the ED were also collected. Multiple correspondence analysis (MCA) was carried out to explore relationships between variables related to pain management and hospital characteristics. The study was supported by Angelini ACRAF.

Results: Six hospitals routinely carried out pain assessment at triage, and 7 in the emergency clinical area. Nine hospitals (69%) used validated tools such as FLACC (7 hospitals), Wong-Baker (7) visual analogic or visual numeric scales (8). EMLA cream for anticipated venous cannulation was used "sometimes" (10 to 50% of events) by 4 hospitals, and often (51 to 90%) by 1. MCA identified two main dimensions, explaining 85.3% of variance in pain management policies: 1) routine pain assessment, joint medical nursing protocols for pain treatment, and EMLA at least sometimes; and 2) pain measurement through validated tools and recording of results. Being a paediatric hospitals, university affiliation, medico-surgical and trauma emergency functions, global triage on a 24h basis, and possibility for short-stay observation were associated with higher scores on both dimensions.

Conclusions: Despite a general awareness of the relevance of acute pain in children and widespread presence of protocols, use of validated tools and prophylaxis of procedural moderate pain are still insufficiently applied.