LETTER TO THE EDITOR

PEDIATRIC ENDOTRACHEAL INTUBATION

Claude Abdallah*

Dear Editor,

I have read with interest the manuscript: ”Simulation training in endotracheal intubation in a pediatric residency” M. E. J. Anesth 22(5) 2014, by Drs. Sharara-Chami, Taher, Kaddoum, Tamim and Charafeddine. The authors are to be congratulated for taking the time to analyze and publish the study, the discussion highlights interesting points.

Tracheal intubation in pediatric patients is an essential tool in anesthesiology, traditionally acquired in a clinical setting. Factors related to the patient such as the age of the patient and the level of experience of the trainee may be determinant factors in the decision of the anesthesiologist to make a first attempt at tracheal intubation. Learning curves exist for practical skills and despite useful tools to monitor the learning process; competency is difficult to assess by the anesthesiologist in the absence of adequate exposure with the trainee or a previous documentation of the level of execution of involved skills. Literature review shows the advantage of preparing trainees outside the operating room so that clinical training opportunities can be used most effectively when they arise. Scientific reports documenting the effects of simulation training on learning and updating knowledge about airway management showed improvement in decision-making, communication capabilities1-4 and a better learning of crisis management and endotracheal intubation5. Residents achieve proficiency levels in a smaller number of elapsed days of training and in a smaller number of trials in the operating room6. Simulation would represent also an additional tool for assessing the performance of procedures in anesthesia, such as rapid sequence induction, since it represents more clearly behaviors used in clinical practice than is possible to demonstrate using evaluation by questionnaires7. This may be particularly interesting since theoretical lectures and standard mannequin-based driven workshops have shown to improve overall theoretical knowledge but not to translate to practical skill during realistic mannequin-based simulations8.

As discussed by the authors, future studies pertaining to documentation of the trainee’s perspective when faced with a pediatric tracheal intubation with teaching of pediatric endotracheal intubation with and without simulation training would be useful to perform.

* MD, MSc, Children’s National Medical Centre, Division of Anesthesiology, 111 Michigan Ave. NW, Washington DC, 20010 USA, (202) 476-2407. E-mail: cabdalla@cnmc.org
References


The key to

Lock-up

Postoperative Pain

Initial bolus
Inject 1 ampoule Tramal® 100 mg i.v. or i.m. slowly over 2-3 minutes

Ways of administration after initial bolus

Infusion
Inject 2 ampoules Tramal®, each 100 mg, in 500ml of infusion solution. Infusion rate 12-24 mg Tramal®/h (10-20 drops/min or 30-60 drops/min).

PCA
Subsequent increments of 26 mg with a lock-out time of 5 minutes.

Injection
Usual dose is 50 mg or 100 mg 4-6 hourly up to a total daily dose of 400 mg except in special clinical circumstances which might necessitate daily doses up to 600 mg. Further treatment with Tramal® bolus on demand.

Follow-up

Follow-up

1-2 capsules every 4-6 hours
50 mg
80-80 drops every 4-6 hours
1 suppository every 4-6 hours
100 mg

slow release
010 mg, 150 mg, 200 mg
1 tablet every 12 hours

Intra-Operative

Loading Dose
2.5 - 3 mg/kg at wound closure

Post-Anaesthesia Care Unit

If intra-operative dose not given then:
BOLUS I.V.*
100 mg over 2-3 mins

An intra-operative loading dose of Tramal® will reduce PONV rates

*If needed further doses of 50 mg up to a total of 200mg (incl. the initial bolus) may be given within the first 60 min.

For patients with localized BURNING, SHOOTING, STABBING, Neuropathic pain

WORKS WHERE IT HURTS

versatis
5% lidocaine medicated plaster

GRUNENTHAL
BRIDION—for optimal neuromuscular blockade management and improved recovery

Predictable and complete reversal

- 98% of BRIDION patients recovered to a TOF® ratio of 0.9 from reappearance of T₁ ¹ within 5 minutes²
- 97% of BRIDION patients recovered to a TOF® ratio of 0.9 from 1 to 2 PTCs † within 5 minutes³

Rapid reversal

- BRIDION rapidly reversed patients from reappearance of T₂ ‡ in 1.4 minutes²
- BRIDION rapidly reversed patients from 1 to 2 PTCs † in 2.7 minutes³

BRIDION is indicated for the reversal of neuromuscular blockade induced by rocuronium or vecuronium. In children and adolescents (aged 2-17 years), BRIDION is only recommended for routine reversal of moderate rocuronium-induced neuromuscular blockade.¹

Important safety information

BRIDION is not recommended in patients with severe renal impairment. Studies in patients with hepatic impairment have not been conducted and, therefore, patients with severe hepatic impairment should be treated with great caution. Caution should be exercised when administering BRIDION to pregnant women as no clinical data on exposed pregnancies are available.

BRIDION has not been investigated in patients receiving rocuronium or vecuronium in the Intensive Care Unit (ICU) setting.

If neuromuscular blockade is required within 24 hours of BRIDION administration, a non-steroidal neuromuscular blocking agent should be used instead of rocuronium or vecuronium. The most commonly reported adverse reactions were dysgeusia (metal or bitter taste) and anesthetic complications (movement, coughing, grimacing, or suffocation on the endotracheal tube). In patients treated with BRIDION, a few cases of awareness were reported. The relation to BRIDION was uncertain. In a few individuals, allergic-like reactions (ie, flushing, erythematous rash) following BRIDION were reported. Clinicians should be prepared for the possibility of allergic reactions and take the necessary precautions. In a trial of patients with a history of pulmonary complications, bronchospasm was reported in 2 patients and a causal relationship could not be fully excluded.

Volunteer studies have demonstrated a slight (13%-22%) and transient (<30 minutes) prolongation of the prothrombin time/activated partial thromboplastin time (PT/aPTT) with BRIDION; however, clinical studies have demonstrated no clinically relevant effect on peri- or postoperative bleeding complications with BRIDION alone or in combination with anticoagulants. As BRIDION has demonstrated an in vitro pharmacodynamic interaction with anticoagulants, caution should be exercised in patients on anticoagulation for a pre-existing or concomitant condition. This pharmacodynamic interaction is not clinically relevant for patients receiving routine postoperative prophylactic anticoagulation. Although formal interaction studies have not been conducted, no drug interactions were observed in clinical trials. Preclinical data suggest that clinically significant drug interactions are unlikely with the possible exceptions of toremifene, fusidic acid, and hormonal contraceptives.

¹ Train-of-four
² Post tetanic count
³ Second twitch


Please see summary of product characteristics for full prescribing information.
Pioneering Medical Technology

TAP Block And InfiltraLong
For Effective Treatment Of Long And Deep Incisions

Sono Cannulas
For Single Shot UltraSound Guided Nerve Blocks

SonoSystem And SonoLong Curl
For UltraSound Guided Nerve Blocks

Sprotte® 2.G
The New Generation Dura Punctre In Minimum Time

SonoEye Ophtalmic Block
For Peribulbar And Retrobulbar Blocks Under Ultrasonic Monitoring

www.mediline-lb.com  Tel:+961 1 697500