Can positioning alter the success of endotracheal intubation in obese?

Dear Editor,

We read with great interest your article ”Use of Simple Clinical Predictors on Preoperative Diagnosis of Difficult Endotracheal Intubation in Obese Patients” in which you have shown a significant correlation of Obstructive Sleep apnea (OSA) and difficult intubation (DI) in obese patients.1

1. The position of the patient during laryngoscopy is an important factor determining the success of endotracheal intubation. In the present study, the authors have not specified the position of the obese patients while attempting laryngoscopy and endotracheal intubation. The use of ramped position has shown to improve the laryngoscopic view and intubation success rate in comparison to the standard sniffing position in obese patients.2 Neligan et al. in their study showed that OSA does not form a risk predictor for DI in morbidly obese patients in ramped position.3

2. Contrary to the statement by the authors we feel, that the risk factors for difficult mask ventilation and DI are quite different. Modified Mallampatti, neck circumference, thyromental distance and restricted jaw mobility form risk factors for difficult intubation in obese patients.4 While increased body mask index (BMI) and history of OSA has been shown to have correlation with difficult mask ventilation.5

Therefore we feel that a mention of the positioning for endotracheal tube is an important aspect of this study, which can affect the results of the study.

Conflicts of interest

The author declares no conflicts of interest.

References


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Palatoplasty in a patient with Seckel syndrome: an anesthetic challenge

Dear Editor,

Seckel syndrome first described in 1960,1 is an autosomal recessive disorder found in consanguineous marriages characterized by severe IUGR, postnatal growth retardation, mental retardation, beak like face and retrognathia. Its incidence is less than 1 in 10,000 live births with 25% chances of recurrence in subsequent siblings.1 Nearly 60 cases have been reported till date with very few cases having being administered general anesthesia (GA). We report the first successful palatoplasty done under GA in a child with Seckel syndrome.

An eight-year-old male child with wide cleft palate presented with complaints of poor feeding, repeated upper respiratory infections and inability to verbalize clearly.
He had been conceived by IUI (donor husband), after 1½ year of treatment of non-consanguineous parents with infertility. Mother had history of hypertension, diabetes, severe oligohydramnios and IUGR during antenatal period in all trimesters. Born at 34 weeks of gestation by normal vaginal delivery with birth weight of 930 g, he cried immediately after birth, but was kept on ventilatory support for almost 1 month in view of lung hypoplasia. His developmental milestones were slightly delayed; however, his two female siblings, also conceived by IUI, showed normal development with no evidence of Seckel syndrome. On examination, the child weighed 9.5 kg and had a height of 100 cm (Fig. 1). He had microcephaly, retrognathia, bird like face, large eyes, small low set ears, dental caries, long neck, clinodactyl, bilateral elbow contracture, left undescended testis and urinary and fecal incontinence because of small spina bifida, high arch palate with incomplete cleft of palate. His routine blood investigations and echocardiography were normal. Chest X-ray showed a tubular cardiac shadow with downward slanting rib cage and normal lung fields. The patient was scheduled for a pushback palatoplasty under general anesthesia. In view of an anticipated difficult airway, we did not premedicate the child prior to the surgical procedure and kept a fully equipped difficult airway cart ready. After monitoring ECG, peripheral oxygen saturation and noninvasive blood pressure, general anesthesia was administered using inhalational induction with sevoflurane in titrated doses while preserving spontaneous respiration in view of an anticipated difficult airway. Due to the friability of veins, intravenous (i/v) cannulation was achieved with difficulty using 24G cannula. Injection fentanyl 15 μg was administered intravenously and after ascertaining chest rise with bag-mask ventilation, intravenous suxamethonium 1.5 mg/kg was given to facilitate endotracheal intubation. After an initial failed attempt with RAE tube size 6.0 mm due to narrowing in subglottic region of larynx, patient’s trachea was intubated with un-cuffed RAE tube size 4.5 mm. Anesthesia was maintained with oxygen and air titrated with sevoflurane and intermittent doses of i/v atracurium. Pushback palatoplasty was done for incomplete cleft palate and intraoperative period, which lasted 75 minutes, was uneventful. At the end of surgery, trachea was extubated in an awake responsive child, after reversal of neuro-muscular block and establishment of adequate spontaneous respiration. Post-operatively, patient was kept in intensive care for monitoring of any apneic spells, respiratory failure or oral bleed. The patient was allowed liquids after 6 h. Patient’s post-operative course was uneventful, and he was discharged after 5 days. Features present in patients with Seckel syndrome which maybe relevant to the anaesthesiologist include presence of variable degrees of facial abnormalities, microcephaly, retrognathia, craniosynostosis, dental deformities, laryngeal stenosis, friable veins, mental retardation, anaemia, pancytopenia and cardiovascular (PDA, hypertension, complex cardiac defects), osteoskeletal and endocrinical (congenital adrenal hyperplasia, hyperinsulinism) abnormalities.6,7 Our patient had quite a few variations from typical, classical Seckel syndrome as he was born to non-consanguineous married parents after IUI. He had borderline intelligent quotient with nearly normal comprehensive and non-verbal expressive language. He had no strabismus or cataract of eyes and also had normal hematological and nutritional profile because of which palatoplasty could be planned.

Perioperatively, these patients can pose a number of challenges for the anaesthesiologists. Securing an intravenous access can be difficult, as was in our case, due to friability of veins. As the airway can also be difficult to ventilate and intubate in these patients, so all the equipment to deal with airway difficulties should be kept ready. Moreover, estimation of the correct tube size maybe difficult in these patients, with the age & weight of child failing to predict the size in approximately 53% of the cases. As the variations in tracheal tube size could range up to 11/2 sizes smaller than the predicted size, hence, the airway cart must include tubes 1–1/2 sizes smaller than that predicted. In our patient also we were able to intubate with 4.5 mm tube rather than with that of 6.0 mm which was considered normal for his age [(age in years + 16)/4]. Other than the difficulty encountered in handling the hypoplastic palatal tissue during surgery, the intraoperative course was relatively uneventful. The patient had no postoperative complications like apneic spells or intraoral bleed as reported in literature8 and the palatal healing was normal on follow up.

Thus, to conclude such patients should be thoroughly evaluated preoperatively to rule out any cardiac or other systemic problem. Anesthetic problems because of difficult airway, long neck, narrow trachea and fragile veins should be anticipated and emergency measures should be kept ready to deal with any eventuality. The possibility of hematological abnormality like anemia, pancytopenia and leukemia should be preoperatively evaluated along with nutritional assessment.

Conflicts of interest

The authors declare no conflicts of interest.
Comparative study between bupivacaine (S75-R25) and ropivacaine to evaluate cardiovascular safety in brachial plexus block: Hamaji A et al.: Rev Bras Anestesiol, 2013;63(4):322–326

Dear Editor,

It was really gratifying for me – I, who am the true author of the ultimate local anesthetic agent obtained worldwide, the enantiomeric mixture of bupivacaine (EMB) or simocain or also novabupi – the efficacy, without the corresponding cardiotoxicity of this product, thanks to the research of my colleagues at the Department of Anesthesia, Hospital de Clínicas, USP (where I come from).

The method used in the research is based on the measurement of important variables for the plexus block technique, which ensures the great relevance of such a research. Therefore, it is a well-conducted clinical work, able to endorse my findings in the preclinical phase of the study of this compound on the aspects of efficacy/safety.

However, some inconsistencies emerge in the writing of this article, such as:

(a) The authors, when referring to the local anesthetic compared to ropivacaine, committed a historical untruth.

The invention that resulted in the non-equimolar racemic compound formed by antagonistic isomers – the bupivacain enantiomers (S75%;R25%) WAS NOT "created by a Brazilian pharmaceutical company" at all.

In truth, the insight happened in the stands of my lab at the Department of Pharmacology, Institute of Biomedical Sciences, University of São Paulo, and it was also there that I made the application for patenting. As a support for this historical truth, this product was endorsed by INPI (Instituto Nacional de Propriedade Industrial) – the regulatory agency of the Brazilian government – which granted it a patent and recently confirmed it by charter (Fig. 1).

In the course of writing the article, however, there is a reference to this compound, attributing its origin to the "Brazilian pharmacology, that introduced an enantiomeric mixture of optical isomers containing 75% levobupivacaine (S-) and 25% dextrobupivacaine (R+) – the S75-R25 bupivacaine".

My question is: What is the group of pharmacologists responsible for this feat? This was not mentioned.

And why the true authorship was omitted, even at the cost of blurring the University of São Paulo? The question remains hanging in the air.

Would not be more correct to search the literature, so as not to incur in an enormous blunder which impairs the excellence of the research and thus shakes somehow the reputation of the authors (some of them renowned Professors)? In a quick search of the literature, it would be possible to find reliable studies (among others) and relevant and trustworthy papers, such as:


Simonetti MPB et al. Is it worth manipulating the enantiomeric ratio of bupivacaine to improve the efficacy of the neural block with reduced cardiotoxicity? Inter Monitor-ESRA. 1999;11(suppl.):198.


5. Simonetti MPB. Patente: curiosidades vernáculas e história da ideia que foi patenteada e da patente...