

Author's reply

Appropriate airway management is of paramount importance when treating critically ill patients. It is frequently used in several medical specialties that deal with emergency care and requires qualified professionals with experience in this type of procedure. Airway establishment and maintenance is a continuous multi-faceted process that requires ability, experience and compliance with systematic steps. In his letter to the Editor, Dr. Krzysztof M. Kuczkowski, in reference to the review article published by us,¹ reinforced the importance of three steps to be followed during airway management in pediatric patients. The first step is specifically concerned with preparation for airway manipulation and includes important symptomatologic aspects that should be checked in all patients, since they can provide, in a fast and noninvasive fashion, some useful information that may contribute to the success and safety of the maneuver. After that, he highlighted the importance of checking the appropriate positioning of the endotracheal tube, using specific devices incorporated into international resuscitation protocols.^{2,3}

Finally, Dr. Kuczkowski mentions the possibility of failure, which may be avoided by way of proper mask ventilation and optimized technical conditions during the procedure, probably resulting in a favorable clinical outcome.

Actually, the issues pointed out by Dr. Krzysztof M. Kuczkowski stress the importance of systematizing airway management procedures in the pediatric population. The principles that underlie airway management in pediatric patients are virtually the same as those established for adult patients. Except for some anatomical and physiological aspects, the main differences lie in the selection of drugs and equipment to be used, which is often determined by the former characteristics. Therefore, all the issues that have been raised should be considered for a rapid and properly performed sequence intubation.⁴ After the preparation phase, intubation also includes the following phases: preoxygenation, pretreatment, paralysis, protection and positioning. In fact, the procedure initiates some minutes before the preparation phase and goes on for approximately 45 seconds after paralysis. This sequence of events is performed in a successive fashion in a short period of time, and after that, we have post-intubation management.⁴ Here, the focus should be on the appropriate positioning of the endotracheal tube, since a deeper insertion may result in the endotracheal placement of the tube, while a poor insertion is associated with a higher risk of accidental extubation. Thus, the systematic management of all phases will determine a successful procedure. With regard to the latter phase, considering the relevant issues raised by Dr. Kuczkowski about other phases of airway management, Dr. Sunita Goel and Suan-Ling Lim bring other issues into the discussion.⁵ After assessing endotracheal tubes from different manufacturers, they observed some differences regarding insertion depth markings. Their observation is clinically relevant, because many Guidelines estimate insertion depth using these standard markings. Therefore, they underscore the importance of careful clinical judgment, which seems to be beyond any recommendations, as there was a wide variation in insertion depth markings.

All of these considerations show that systematization should be a continuous process that should obligatorily include all the actions and procedures concerned with airway management.

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Low birth weight and early weaning: new risk factors for atherosclerosis

Dear Editor

The study by Romaldini et al.¹ on the risk factors for atherosclerosis in children and adolescents, regarded as the main cause of death in the world and in Brazil, was very appropriate. The authors detected one or more risk factors for atherosclerosis in 41% of 109 children and adolescents with family history of early heart disease. The higher the number of risk factors, the higher the probability of disease, since the effects are multiplied. Therefore, the recent publications of scientific evidence regarding two new risk factors for cardiovascular diseases, namely low birth weight and absence of breastfeeding, are of utmost importance, especially to those who provide child care.

Singhal et al.² suggest that nutrition during childhood permanently affects the lipoprotein profile throughout life and that breastmilk has a protective effect on this profile. In a recent randomized clinical trial, they found a lower cholesterol concentration and a lower LDL/HDL ratio in adolescents with a preterm birth who had been breastfed. The ALSPAC (Avon Longitudinal Study of Parents and Children) also

revealed long-term protective effects of breastmilk against cardiovascular diseases, suggesting that the promotion of exclusive breastfeeding is essential for the management of hypertension.³ These pieces of evidence, for both rich and poor countries, are supported by the recent WHO publication about the role of diet and nutrition in the prevention of chronic diseases.⁴

Lower birth weight, which results from fetal malnutrition, leads to cellular adaptation in critical periods of growth, which permanently alters the cell metabolism. In an attempt to protect vital tissues, such as the brain, the fetus produces hormonal changes in order for the body to adapt to a lower protein and energy supply, which compromises the development of several organs (liver, kidneys, pancreas) and systems (vascular, muscular and bone). After the first months of life, when malnutrition has been resolved, this mechanism predisposes to cardiovascular disorders, cerebrovascular disease, type 2 diabetes mellitus, obesity, hypertension, osteopenia, some kinds of cancer, and mental diseases.^{5,6}

These pieces of evidence represent new preoccupations with public health for rich countries, which still have high rates of early weaning, and for poor countries, which show a shorter duration of breastfeeding and a high rate of low birth weight newborns. To what extent can these new risk factors explain the increase in the prevalence of obesity and type 2 diabetes mellitus (more than 40% in the last decades) in

Brazil or predict a rise in morbidity and mortality due to cardiovascular diseases in poor areas? The answer to this and other questions is necessary so as to allow the prevention of adult diseases that can be traced back to intrauterine life or childhood.

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