Do new publications on the anatomy of the larynx of neonates and infant help to prevent intubation injury?

To give a convincing overview of the pediatric larynx we have to rely on anatomical findings depicting the funnel (conical) shape of the unyielding cartilaginous structures (1) with the apex at the outlet of the larynx (2). However, the distensible part of the larynx, consisting of glottis and anterior wall superior of the arch of the cricoid cartilage, are not convincingly described yet because radiological methods (MRI and CT-scans) cannot demonstrate the distention of this part which occurs during every intubation. These two aspects of the larynx can lead to controversial discussions which affect the work of nurses how to deal with tracheal tube care. Airway endoscopy with small endoscopic lenses (type Hopkins) can visualize glottis, sub-glottis space and the narrow outlet of the cricoid ring during spontaneous breathing under anesthesia, confirming rigid anatomical and distensible structures of the larynx. Simultaneous documentation of airway injury leads to desirable early treatment. Newer studies, relying on MRI and CT-scans without accompanying endoscopy (3) might lead to inadequate interpretation of their findings in relation to intubation trauma. Video-laryngoscopy as a first step to establish endoscopic technology to visualize the intubation procedure can help to prevent airway injury.

Biography

Josef Holzki is a teaching professor at the University Children’s Hospital Liège, Belgium, after retiring from being Director/Chairman of the department of Pediatric Anesthesia and Surgical Intensive Care Unit (SICU) in Children’s Hospital Cologne, Germany for 23 years. He also served as a President of the FEAPA (Federation of European associations of Pediatric Anesthesia), Lecturer in international meetings of Pediatric Anesthesia and –intensive care and airway endoscopy, honorary member of the Association of Pediatric anesthesia of Great Britain and Ireland (APA).

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