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Poster Presentation

Clinical Management for Blunt Laryngotracheal Trauma in Children

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Abstract

Cervical injury, Blunt and Penetrating trauma, hardly lead to morbidity and mortality in children population but it is clinically important. Although Blunt trauma is less prevalence in children than Penetrating trauma, it is life threatening due to laryngotracheal rupture. Bicycle accidents are common reason of Blunt trauma. Blunt Laryngotracheal injury is rare in children because mandibular bone protection, elasticity of the cartilaginous support of the airway and the mobility of the supporting tissues collectively act to protect the laryngotrachea. Clinical symptoms of Blunt cervical trauma are various including stridor, hoarseness, dyspnea, voice alternation, and etc. All patients with Blunt cervical trauma should perform direct laryngoscopy and bronchoscopy (DL & B) and esophagoscopy. CT scan can be as a reliable imaging method in Blunt cervical trauma due to its high diagnostic sensitivity. Early diagnosis and air way management is necessary to prevent morbidity and mortality. Immobility of cervical spine should be employed in Blunt cervical trauma to avoid spine injury. Techniques proposed for securing air way include endotracheal tubing with direct laryngoscopy or elective tracheostomy under fiber optic guidance. Managing laryngotracheal stenosis is dangerous, hard and complicated and it may need multiple surgeries and the most common surgery method is tracheostomy where should be performed rapidly at children's bedside and with anesthesia. Treatment includes: observation, stand-alone endoscopy, restoration by endoscope, open cervical explore with open reduction internal fixation (ORIF), and tracheotomy. Results of successful assessment through voice quality and airway accessibility are investigated.

Keywords: Laryngotracheal injury, Blunt trauma, Children, Management.

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