

Accepted Manuscript

Risk factors for laryngeal trauma and granuloma formation in pediatric intubations

Minyoung Jang, Krystyne Basa, Jessica Levi

PII: S0165-5876(18)30024-7

DOI: [10.1016/j.ijporl.2018.01.008](https://doi.org/10.1016/j.ijporl.2018.01.008)

Reference: PEDOT 8842

To appear in: *International Journal of Pediatric Otorhinolaryngology*

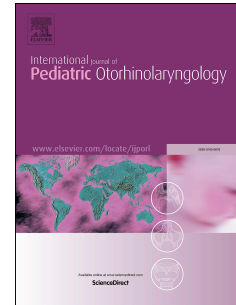
Received Date: 2 July 2017

Revised Date: 11 January 2018

Accepted Date: 14 January 2018

Please cite this article as: M. Jang, K. Basa, J. Levi, Risk factors for laryngeal trauma and granuloma formation in pediatric intubations, *International Journal of Pediatric Otorhinolaryngology* (2018), doi: 10.1016/j.ijporl.2018.01.008.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Risk factors for laryngeal trauma and granuloma formation in pediatric intubations

Minyoung Jang¹, MD; Krystyne Basa¹, MD; Jessica Levi¹, MD;

¹Boston Medical Center, 1 Boston Medical Pl, Boston, MA 02118

Corresponding author: Jessica R. Levi, Jessica.levi@bmc.org

***Findings were presented at the Society for Ear, Nose and Throat Advances in Children Annual Meeting, December 2014, St. Louis, MO.*

****There are no conflicts of interest for all authors (M.J., K.B., J.L.)*

Objective: Intubation has been associated with laryngeal injury that often resolves spontaneously without complication. We present a case of a child intubated for less than 48 hours, who presented with persistent dysphonia and intermittent dyspnea two months after intubation due to epiglottic and vocal process granulomas. This is unusual in that multiple granulomas were found in the posterior glottis and supraglottis after short-term intubation. Our objective was to determine if there are risk factors for developing persistent post-intubation sequelae, including the delayed presentation and unusual location of post-intubation granulomas in our case.

Study Design: Case report and systematic literature review.

Methods: Pubmed database, which is inclusive of MEDLINE, was used to perform a literature review. Search terms ((pediatric OR children OR neonatal OR infant) AND (laryngeal OR supraglottic) AND intubation AND (granuloma OR injury OR complication)). Only English language results were reviewed. Titles and abstracts from 379 results were reviewed. Full text was reviewed from all original studies which included human pediatric subjects and endoscopic examinations after endotracheal intubation.

Results: In our case, laryngeal granuloma size reduced significantly after starting anti-reflux medications. The remainder was removed with laryngeal microdebrider with no recurrence at 3 weeks and 2.5 years post-operatively. Overall, 28 of the 379 studies reviewed identified evidence of laryngeal trauma due to intubation, however only 6 studies documented any type of supraglottic injury. Risk factors identified for developing post-intubation sequelae included intubation duration greater than 24 hours; trauma to the larynx via various mechanisms including traumatic intubation, need for reintubation and tube changes, and increased movement while intubated; and presence of respiratory tract infection during intubation.

Conclusion: Trauma to the larynx during intubation should be avoided to minimize post-intubation injury in pediatric patients, by using appropriate intubation protocols, endotracheal tube size, and adequate sedation.

Keywords: laryngeal, granuloma, intubation, trauma, injury, pediatric

Download English Version:

<https://daneshyari.com/en/article/8806326>

Download Persian Version:

<https://daneshyari.com/article/8806326>

[Daneshyari.com](https://daneshyari.com)