



Harmonic Shears in the Surgical Treatment of Laryngomalacia

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Abstract

Laryngomalacia is the most common congenital laryngeal anomaly. Sufferers gift with distinct degrees of stridor and feeding troubles that usually resolve by means of 18 months of age. A small wide variety gift with excessive feeding problems, failure to thrive, stridor with cyanosis, and apnea, which might also bring about cardiopulmonary disorder. Those toddlers require surgical intervention, typically a hyomandibulopexy or tracheotomy. We gift a new procedure, epiglottoplasty that is done endoscopically and includes excision of redundant mucosa over the lateral edges of the epiglottis, aryepiglottic folds, arytenoids, and corniculate cartilages. Ten sufferers have gone through this method with suitable outcomes. Epiglottoplasty represents an alternative to tracheotomy in excessive laryngomalacia. Indications, strategies, postoperative control, and complications are supplied.

Keywords: Laryngomalacia, Epiglottoplasty, Aryepiglottic, Cyanosis, Epiglottoplasty

Introduction:

Laryngomalacia (LM) is conditions that is clinically recognized inside the pediatric length with inspiratory stridor and is because of a congenital or obtained disintegrate of laryngeal superstructures. Endoscopic supraglottoplasty is the contemporary gold popular surgical treatment for severe or complicated laryngomalacia. Numerous cold and powered surgical devices were used to technique the aryepiglottic folds, and their blessings and disadvantages were widely mentioned. The applicability of Ultracision Harmonic shears (Ethicon Inc., NJ, US) for the sake of supraglottoplasty has now not been formerly endorsed within the literature and is the situation of this examine. Laryngomalacia (LM) is a situation that is clinically diagnosed inside the pediatric length with inspiratory stridor [1]. Its miles caused by a congenital or obtained disintegrate of laryngeal suprastructures in numerous different patterns. LM ranks as the most universal cause of stridor in infants and infants. The exact reasons of LM are still debatable. There are usually 3 kinds of LM in step with the vicinity of the most demonstrative

crumble in keeping with Olney et al. Aryepiglottic disintegrate (type 1), brief aryepiglottic folds (type 2), and epiglottic collapse (kind three). Main theories are based on the notion of anatomical abnormalities of the supraglottic structures, structural changes of the tissues of the larynx, neurologic disorder, and inflammatory situations. Mild LM includes only inconsequential inspiratory stridor, mild is complex with feeding problems, and severe gives with failure to thrive and respiration failure. Creation Laryngomalacia (LM) is a condition that is clinically diagnosed inside the pediatric length with inspiratory stridor and is because of a congenital or received crumble of laryngeal suprastructures [2]. Endoscopic supraglottoplasty is the present day gold preferred surgical treatment for intense or complex laryngomalacia. Various bloodless and powered surgical gadgets were used to approach the aryepiglottic folds, and their advantages and downsides were extensively discussed. The applicability of Ultracision Harmonic shears (Ethicon Inc., NJ, US) for the sake of supraglottoplasty has no longer been previously endorsed inside the literature

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and is the subject of this observe [3]. Strategies this turned into a review of the scientific statistics of pediatric patients, with slight to excessive congenital laryngomalacia, who underwent supraglottoplasty with Harmonic at a single institution, from 2013 to 2019. outcomes a total of six patients underwent bilateral aryepiglottic fold division with using Ultracision within the look at length (4 male, 2 woman; imply age 7+/-9 months, age range 1m-24 m). Postoperatively, all of the kids have been extubated and admitted to the pediatric in depth care unit (p.c.) as a precaution degree. There were no early or late complications after the intervention. The postoperative endoscopic image changed into evaluated in three sufferers (two of which for every other purpose). A solid laryngeal frame without a crumble or immoderate scarring changed into found. Not one of the sufferers required repeat surgical procedure. end based on the convenience of surgical access, overall performance, surgical precision, and postoperative results, the use of Harmonic scissors appears to be a safe, realistic, less expensive, and without difficulty applicable opportunity for supraglottoplasty type 2 [4,5].

Conclusion:

Preoperative workup protected a complete history and bodily examination with bendy laryngoscopy or direct laryngoscopy with sedation and spontaneous respiratory if you want to exclude other opportunity or concomitant abnormalities of the upper airlines that could present with inspiratory stridor. Polysomnography became unavailable. Diagnostic endoscopy with video recording turned into carried as a minimum someday before the surgical intervention. The findings have been discussed with the mother and father and informed consent for the intervention becomes obtained. Surgical treatment changed into performed below widespread anesthesia with transoral intubation. Perioperatively

steroids (dexamethasone) were administered. All interventions (supraglottoplasty kind 2) had been achieved in a uniform way by way of a two-doctor team. One health care provider manipulated a right away laryngoscope of the Macintosh kind and the lively tool while the assistant held a rigid Hopkins rod lens endoscope (0° in three cases, 30° in cases, and 0° and 70° in a single case) with a right away video connection to a display located in the front of the surgical group. The powered device used become Harmonic ACE shears (Ethicon Endosurgical treatment, Inc.,) with a 23 mm long shaft, five mm shaft diameter, and a fifteen mm long curved applicator. They had been operated with the Harmonic Generator 300 (GEN04) with the minimum electricity degree set at degree three. In all six cases, bilateral sectioning of the aryepiglottic folds was executed.

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