

systematic review and meta-analysis. *J Cardiothorac Vasc Anesth* 2016;30(2):501–514

A009 Case Report: Near Accidental Extubation in a Case of Juvenile Scoliosis Associated with Neurofibromatosis during Elongation-Derotation-Flexion Casting

Manali Choudhary,¹ Madhvi Buddhi¹

¹Department of Anaesthesia, Seth G. S. Medical College and KEM Hospital, Mumbai, India

Introduction: Elongation-derotation-flexion (EDF) casting is emerging as a promising nonsurgical technique for the treatment of infantile and juvenile scoliosis, involving a custom-made thoracolumbar cast that acts simultaneously in the frontal, sagittal, and coronal planes. Latest studies have found that general anesthesia along with muscle relaxants have provided better results for casting. The anesthetic complications of this procedure are concerned with the temporary procedural chest pressure making ventilation difficult, while the cast is being set.

Methodology/Description: A 6-year-old male child, known case of neurofibromatosis with café-au-lait spots, the Lisch nodules, and severe thoracolumbar kyphoscoliosis, was posted for casting of kyphoscoliosis. Patient was given general anesthesia with muscle relaxant and was intubated with 5.5 mm uncuffed endotracheal tube with throat pack. Air entry was bilaterally equal and there was no audible leak. Patient was placed on improvised reduction apparatus comparable to the Cotrel frame and was given axial correction of spine. Subsequently, entire trunk was plastered and thoracoabdominal window was cut. As soon as the spine was subjected to elongation traction, it was noted that there was an audible leak around ETT. But as the ventilation was possible, procedure was allowed to be completed. Check laryngoscopy done prior to reversal revealed that the level of the tube was at the level of vocal cords, confirming the migration of tube in trachea despite of proper fixation.

Conclusion: Anesthetic concerns reported till now related to EDF casting have been mostly regarding temporary increase in inspiratory peak pressure. Auscultation of chest and visualization of chest expansion in post-EDF casting becomes difficult. This could be the first case report encountering relative change in position of endotracheal tube, probably due to elongation of the trachea during traction correction of spine.

Keywords: EDF, Lisch nodules, laryngoscopy

References

1. Canavese F, Botnari A, Dimeglio A, et al. Serial elongation, derotation and flexion (EDF) casting under general anesthesia and neuromuscular blocking drugs improve outcome in patients with juvenile scoliosis: preliminary results. *Eur Spine J* 2016;25(2):487–494
2. Dhawale AA, Shah SA, Reichard S, et al. Casting for infantile scoliosis: the pitfall of increased peak inspiratory pressure. *J Pediatr Orthop* 2013;33(1):63–67

A010 A Case Series Elucidating the Anesthetic Management of Brachial Plexus Injury Repair: A Three-Year Review of Our Institutional Experience

Joanna Rodrigues,¹ Hetal Rathod,¹ Hitesh Nathani,¹ Shwetal Goraksha,¹ Joseph Monteiro¹

¹Department of Neuroanaesthesia, P. D. Hinduja Hospital Mahim, Mumbai, Maharashtra, India

Introduction: A brachial plexus injury (BPI) could be one of the most devastating injuries to a patient effectively crippling function and potentially leading to unemployment, hardship and depression. With modern techniques in hand along with microsurgery and individualized anesthetic techniques, it is totally feasible to restore function in this valuable segment of our population.

Methodology/Description: Information of BPIs from 2015 to 2017 was obtained from the Department of Anesthesia, P. D. Hinduja Hospital, Mumbai, using the Anesthesia Record Keeping System. We operated upon 48 cases in the year 2015, 64 cases in the year 2016, and 45 cases till date in the year 2017. Out of these, four were position-related iatrogenic injuries.

Conclusion: Successful management of a case of BPI involves a balanced approach involving TIVA, inhalational agents along with monitoring of the depth of anesthesia and neuromuscular monitoring. Drugs should be well-titrated to avoid awareness and present a deep plane of anesthesia without using muscle relaxants.

Keywords: brachial plexus injury, anesthetic management, BPI

References

1. Wolford LM, Stevao EL. Considerations in nerve repair. *Proc Bayl Univ Med Cent* 2003;16(2):152–156
2. Bhandari PS, Maurya S. Recent advances in the management of brachial plexus injuries. *Indian J Plast Surg* 2014;47(2): 191–198

A011 A Retrospective Analysis of Perioperative Factors affecting Outcome in Children with Cervical Spine Injury

Ankur Khandelwal,¹ Vikas Chauhan,¹ Gyaninder P. Singh,¹ Girija P. Rath¹

¹Department of Neuroanaesthesiology and Critical Care, All India Institute of Medical Sciences (AIIMS), New Delhi, India

Introduction: Not much has been described about perioperative factors affecting outcome in children cervical spine injury (CSI).

Methodology/Description: Data of children (age ≤ 18 years) with CSI who underwent surgery during a period of 7 years were reviewed, retrospectively. Various factors affecting outcome were included in the study.

Results: A total of 112 children with CSI received surgical treatment during the study period. Sixteen children were in the age group of 0 to 8 years, whereas 96 belonged