Letter to the Editor

Authors' reply

Sir,

Thank you for your interest and valuable comments on our article on ventricular premature contractions (VPCs) under anesthesia in prone position.

We do agree that carinal irritations at times cause VPCs. However, bradycardia and VPCs secondary to carinal stimulation are known to occur mostly in hemodynamically unstable patients with coexisting hypoxemia, and in patients under light plane of anesthesia. These possibilities were ruled out prior to administration of lignocaine in our case. Both, tracheal tube displacement and light plane of anesthesia, should have altered the airway pressure to some extent, which was not seen in this case. We tried to find out the cause of these VPCs with the help of 12-lead ECG and arterial blood gas analysis, and took the opinion of a cardiologist. Other common causes of VPCs like coronary artery disease and myocardial infarction were also ruled out. The hemodynamic parameters of the patient were observed intraoperatively for 30 minutes, and were found to be normal. Moreover, the patient was evaluated for the cause(s) of arrhythmia during the postoperative period. All inhalational agents have arrhythmogenic potential. Although we implicated isoflurane as the possible cause of intraoperative VPCs, lignocaine infusion was used to treat it, rather than a change in anesthetic technique, as there was no associated hemodynamic instability. We would like emphasize that, transient episodes of VPCs, without any hemodynamic changes may not be pathological and hence, should not be the reason for cancellation of surgery in an otherwise healthy individual.

Surya Kumar Dube, Sachidanand Jee Bharti, Girija Prasad Rath

Department of Neuroanaesthesiology, All India Institute of Medical Sciences, New Delhi, India

Address for correspondence:
Dr. Girija Prasad Rath,
Associate Professor Department of Neuroanaesthesiology
Neurosciences Centre, 6th Floor/ Room No. 9 A.I.I.M.S.,
New Delhi-110029 E-mail: girijarath@yahoo.co.in

References

1. Dube SK, Bharti SJ, Rath GP . Frequent ventricular premature contractions under anaesthesia in prone position. Indian J Anaesth 2011;27:128-45.

2. Burman SO, Gibson TC, Chir B. Bronchoscopy and cardiorespiratory reflexes. Ann Surg 1963;157:134-41.

Anesthetic management of cystic hygroma of tongue in a child

Sir,

Tongue involvement is rare in cystic hygroma. With large oral swellings, respiration becomes obstructed with loss of consciousness and ventilation is nearly impossible, as is direct laryngoscopy.

A three-year-old, 11 kg child with continuous salivary drooling, swallowing difficulty, and poor speech had a 5 × 6 × 10 cm congenital cystic hygroma of tongue which prevented closure of mouth and pushed dorsum of tongue toward palate [Figure 1]. He could sleep comfortably in all positions without snoring. Both nostrils were patent. No other swelling or lymph nodes were noticed. A CT scan revealed minimal mass effect on naso/oropharynx [Figure 2]. Coexisting anomalies were ruled out.

Difficult airway cart, tongue stitch, and tracheostomy set were kept ready. Following 10-min preoxygenation and intravenous glycopyrrolate, anesthesia was induced with sevoflurane in oxygen with circular silicon facemask no. 2 initially. Anesthesia was maintained later through nasopharyngeal airway (NPA) via left nostril attached to Jackson Rees (JR) circuit with sevoflurane in 50-50 oxygen-nitrous oxide mixture. Ventilation was possible with jaw thrust with the head turned to one side. Propofol was infused at 4 mg/kg/h. A pediatric fiberoptic bronchoscope (FOB) (Olympus ENF Type P2 model no. 2005366: 3.5 mm diameter, 30 cm working length, 120° angle of view, angulation 130°/130° up/down without suction channel) charged with lubricated 5 mm PVC uncuffed endotracheal tube (ETT), was guided in trachea. Tongue with the cyst was gently displaced using tongue depressor and throat was packed carefully. Subsequent general anesthesia and manual ventilation was uneventful.
Following drainage of 20 mL pus, marsupialization of the cyst wall was done. Check laryngoscopy at the end of surgery ruled out any other hygromas. A tongue stitch was left behind for 48 h. There was no evidence of airway obstruction, tongue edema, bleeding, and desaturation. Orals were started after 48 h. Antibiotics and serratiopeptidase tablets were continued for 5 days.

Direct laryngoscopic intubation under ketamine anesthesia, NPA, and tracheostomy have been used occasionally.[1-3] Tracheostomy requires anesthesia. In cooperative adults and older children options like fiberoptic bronchoscopic, blind nasal and retrograde intubation are available. Lack of strong airway reflexes permits nasal FOB and direct laryngoscopy in an awake neonate. However, the same is impossible in 2- to 6-year-old children where general inhalational anesthesia with spontaneous breathing is the preferred technique.

In the case of nonavailability of FOB, blind nasal intubation with or without guide and retrograde intubation in spontaneously breathing patient under general anesthesia have been tried.[4,5] Though an ideal technique, pediatric bronchoscopic intubation is time consuming and needs experience, skill, expert assistance, proper size of FOB, smooth inhalational induction, deep plane of anesthesia, and maintenance of spontaneous ventilation. In the absence of Patil Syracuse endoscopic facemask, we used NPA via other nostril for administration of anesthetic gases. Since our patient could be ventilated, propofol was used to improve depth of anesthesia.

Pediatric FOB has an external diameter of 2.2-5.8 mm. The larger scopes offer more directional control with suction channel to remove secretions, administer local anesthetics, insufflate oxygen, or insert flexible guide wire. However, they cannot be negotiated into the larynx of younger children. One can use them to visualize glottis and pass a guide through its suction channel over which ETT can be threaded.[6] In the absence of suction channel, passing FOB through one nostril and negotiating ETT through another nostril is possible. [7] Large ETT are difficult to negotiate over smaller FOBs which are floppy, with short focal length and without suction port, ultimately demanding higher skill. Fortunately, we had a 3.5 mm FOB over which 5 mm ETT could be negotiated.

FOB is a safe and good option for large intraoral swelling in children, provided that intubation is done under a deep plane of anesthesia. Needs and characteristics of the patient and FOB decide the specific technique to be used.

Trupti S Pethkar, Anila D Malde
Department of Anaesthesiology, Lokmanya Tilak Municipal Medical College and General Hospital, Sion, Mumbai

Address for correspondence: Dr. Trupti S Pethkar, 101/A Sheetal Swami Samarth Nagar, Andheri (West), Mumbai-400053
Email ID: truptipethkar@yahoo.co.in

References
1. Esmaeili MR, Razavi SS, Abbasi HR, Tabatabaie SM, Sheikh MA, Sheikh MA. Cystic hygroma: Anesthetic considerations and review. J Res Med Sci 2009;14:191-5.
2. Macdonald DJ. Cystic Hygroma: An anaesthetic and surgical problem. Anaesthesia 1966;21:66-71.
3. Meher R, Garg A, Raj A, Singh I. Lymphangioma of Tongue. Internet J Otorhinolaryngology [serial on the Internet], 2005; 3. Available from: http://www.ispub.com/journal/the_internet_journal_of_otorhinolaryngology/volume_3_number_2_38/article/lymphangioma_of_tongue.html [Last accessed on 2011 Jan 22].
4. Arora MK, Karamchandani K, Trikha A. Use of a gum elastic bougie to facilitate blind nasotracheal intubation in children: A series of three cases. Anaesthesia 2006;61:291-4.
5. Borland LM, Swan DM, Leff S. Difficult pediatric endotracheal intubation: A new approach to retrograde technique. Anesthesiology 1981;55:577-8.
6. Stiles CM. A flexible fiberoptic bronchoscope for endotracheal...
Sir,
The use of classic laryngeal mask airway (cLMA) as a conduit for intubation is a known technique in pediatric difficult airway. We faced a unique problem during the management of an unanticipated difficult airway in a neonate while negotiating the endotracheal tube (ETT) through cLMA.

A 1-month-old infant, weighing 3.8 kg, had an unanticipated difficult airway with failure to intubate the trachea despite repeated direct laryngoscopic attempts. Adequate ventilation was achieved with cLMA size 1.0. A flexible fiberoptic bronchoscope (FOB; size 2.8) through cLMA showed grade 4 glottic view.

It was decided that a size 3.5 uncuffed ETT to be passed over the FOB and tracheal intubation attempted using cLMA as a conduit. Despite successfully negotiating the FOB into the trachea, we were unable to pass the 3.5-mm ETT through the cLMA 1.0. Subsequently, tracheal intubation was achieved with a size 3.0-mm ID uncuffed ETT through the same cLMA 1.0 by using the blind technique.

After removal of cLMA, we failed to pass the 3.5-mm ETT through the cLMA even with force. Later, while trying to negotiate 3.5-mm ETT through all (four in daily use) available cLMAs of size 1.0, we were able to pass the 3.5-mm ETT through only one cLMA. In other cLMAs, the ETT stuck in the shaft of the LMA after crossing the connector. The 3.5-mm ETT also passed through a freshly opened size 1.0 cLMA.

The size 3.5-mm ID uncuffed ETT should pass through size 1.0 cLMA, according to manufacturer’s recommendation. There is no mention of the standard internal diameter of the shaft of LMAs in the available literature. Although manufacturers recommend that LMA be used up to 40 times after autoclaving, there have been reports of successful use of LMA up to 100 times.

In our institute, we use cLMA more than the recommended 40 times after testing. In the case reported, three of four LMAs, including the one that allowed passage of the ETT, had been used more than 40 times. The 3.5 mm ETT could not be passed through a cLMA, which had been used less than 40 times. It is not known whether autoclaving produces changes in the outer and inner diameter of shaft of LMA.

We recommend that before using cLMA as a conduit for intubation, the maximum size of tracheal tube that can be passed through a particular LMA should be checked before, to avoid unanticipated difficulties. Manufacturer’s details about the internal diameter may be helpful for further evaluation of change in the diameter of shaft after autoclaving.

Renu Sinha, Bikash Ranjan Ray, Debyani Dey, Swetha S
Department of Anaesthesiology and Intensive Care, Rajendra Prasad Institute of Ophthalmic Sciences, All India Institute of Medical Sciences, New Delhi, India

Address for correspondence:
Dr. Renu Sinha,
S-6, First Floor O.P. D Block, R.P. Center, All India Institute of Medical Sciences, Ansari Nagar, New Delhi-110029, India.
E-mail: renuagarwal4@rediffmail.com

References
1. Brimacombe J, Berry A. A proposed fiber-optic scoring system to standardize the assessment of the laryngeal mask airway position. Anesth Analg 1993;76:457.
2. Goodman EJ, Christenson E, Douglas AM, Ziegler EJ, Lewis BR. Reusable laryngeal mask airways can be used more than 40 times. J Clin Anesth 2008;20:109-15.

intubation of infants. Anesth Analg 1974;53:1017-9.
7. Alfery DD, Ward CF, Harwood IR, Mannino FL. Airway management for a neonate with congenital fusion of jaws. Anesthesiology 1979;51:340-2.