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Anaesthetic Management for Nasal Septal Hematoma Evacuation: A Case Report.

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ABSTRACT

We report the anaesthetic management for nasal septal hematoma evacuation in a pediatric age group. The potential benefit of using a modification of the endotracheal tube as a tubular pack.

Keywords: anaesthesia, nasal septal.

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INTRODUCTION

Children are obligate nasal breathers. There is a high chance of post-operative respiratory disorder in this case when both the nostrils are being packed completely after evacuation of the hematoma.

Anesthetic management of these patients is quite challenging. The anaesthesiologist should have the knowledge of anatomical differences and the post-operative complications [1,2]. This is to be followed by careful planning for provision of safe anaesthesia.

Case Report

A 9 month old infant fell down from the cot and complained of pain at the tip of the nose. The child did not sustain any other trauma. The mother did notice that the child developed respiratory distress while falling asleep which was relieved by crying with no other such episodes. The child also had difficulty in breastfeeding continuously.

Preoperative evaluation was performed and child was assessed under ASA 1, weight of the baby was 7 kgs. Intraoperatively, Preinduction with inj. atropine 0.1mg intravenously. Preoxygenated, inj. ondansetron 1 mg, inj. fentanyl 15 mcg, induced with inj. propofol 15 mg intravenously.

Mask ventilation was difficult, oral airway was placed for better aid in ventilation. The child was intubated with 4.5 size endo tracheal tube after inj. atracurium 3mg. Bilateral air entry was confirmed.

Vitals were monitored and procedure was uneventful.

Post operatively compressive nasal packing was done. The child was fully awake and extubated with inj. neostigmine and inj. glycopyrrolate.



DISCUSSION

The anaesthetic concerns in this case was that the child being 'OBLIGATE NASAL BREATHERS' the chances of post-operative respiratory distress increase when both the nostrils are going to be packed.

A thorough knowledge of the anatomical differences should help in managing this case. In babies up to 9 months of age, The larynx is placed high up [3, 4]. The epiglottis is large and floppy and its approximation to the palate allows a continuous passage of air from trachea to the lungs. This arrangement helps in effective suckling while the airway is kept patent. These changes are lost in adults as the larynx descends down for development of speech.

This structural arrangement that facilitates continuous breathing while the infant is (suckling) breast feeding makes them 'OBLIGATE NASAL BREATHERS'. Most infants can breathe orally with nose blocked but some infants may face difficulties. Any nasal obstruction can cause asphyxiation, desaturation, post-operative respiratory distress, sleep apnea, sudden death. So in this case, we came up with the idea inserting a shortened endotracheal tube of size 4.0 as a tubular pack into one of the nostril and packing both the nostrils normally [5]. This helped in maintaining the airway patency, compressive packing of the nose, deliver supplemental oxygen through the tubular pack. The pack was removed after 24 hrs in the operation theatre.

In summary, the tubular pack using a modified endotracheal tube helped in managing the post-operative respiratory distress in this child. The modification of the endotracheal tube as tubular pack proved to be cost effective and economical compare to the commercially available nasopharygeal tubes.

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