



## Case report

# Anesthetic management of traumatic septal hematoma in a 9 month old infant



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### KEYWORDS

Nasal septal hematoma;  
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Pediatric larynx;  
Obligate nasal breathing

**Abstract** Septal hematoma is treated by incision and drainage followed by nasal packing. This presents a problem in infants who being obligate nasal breathers do not tolerate nasal packing. We describe the use of a nasal airway as tubular pack to maintain the patency of nostril while providing pressure hemostasis.

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## 1. Introduction

Septal hematoma occurs due to bleeding beneath the mucoperichondrium of nasal septum. In children it follows minor trauma like falls and altercations with siblings. Rarely it may be due to child abuse. Left untreated, it can cause ischemic necrosis of septal cartilage and saddle nose deformity. Clinically nasal septal hematoma in infants presents as acute obstruction of both the nostrils. Treatment is by incision and drainage followed by tight packing of both nostrils. The packs are left in place for 24 h [1,2].

## 2. Case report

A 9 month old infant weighing 6.5 kg was diagnosed with septal hematoma and posted for incision and drainage followed

by nasal packing. She was premedicated with Inj Atropine 0.1 mg, Ondansetron 1 mg and Fentanyl 15 µg. Induction was with Propofol 15 mg. Endotracheal intubation was facilitated with 3 mg Atracurium. After evacuation, surgeons wanted to pack both the nostrils. We anticipated post operative respiratory distress due to obligatory nasal breathing in infants. This was circumvented by using a shortened endotracheal tube as a ‘tubular pack’ in one of the nostrils. The other nostril was packed as usual. The baby was extubated when fully awake. Post operatively the patient was able to breathe comfortably with the mouth closed. Supplemental oxygen was provided thorough the same tubular pack (see [Figs. 1–3](#)).

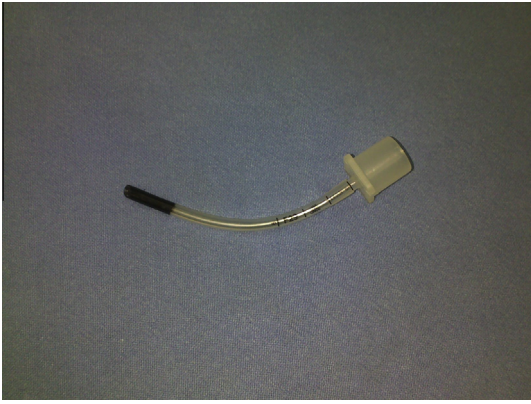
## 3. Discussion

The larynx in infants is placed higher up to facilitate continuous breathing while breast feeding [4,5]. Though they are called obligate nasal breathers, many infants breathe orally when the nostrils are blocked. But some infants tend to desaturate with nasal block manifested by cyanosis relieved by crying. A nasal airway or suitably modified endotracheal tube can be used in place of a nasal pack on one side to maintain a patent airway in the post operative period [3].

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**Figure 1** Shortened ETT as to be used as tubular pack.



**Figure 3** Supplemental oxygen through the pack after extubation.



**Figure 2** Baby with tubular pack in situ.

#### Conflict of interest

None.

#### References

- [1] Jessica NGO (MD) Clinical Instructor. Drainage, nasal septal hematoma. Department of Emergency Medicine, Stanford Hospital Medscape reference.
- [2] Zielnik-Jurkiewicz B, Olszewska-Sosińska O, Rapiejko P. Treatment of the nasal septal hematoma and abscess in children.
- [3] Umana et al. Nasal septal hematoma: using tubular nasal packs to achieve immediate nasal breathing after drainage. *Int J Med Med Sci* 2011;3(7):233–5.
- [4] Crelin Edmund S, Palmer Brian. Obligate nose breathing, descent of the epiglottis, SIDS.
- [5] Sasaki CT, Levine PA, Laitman MP, Crelin ES. Postnatal descent of the epiglottis in man. *Arch Otolaryngol* 1977;103(March): 169–71.