

Anesthetic Management Of A Neonate With Congenital Epulis

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Citation

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Abstract

The commonest cause of difficult airway in pediatrics is due to congenital abnormalities. We are reporting a case of a neonate with congenital epulis swelling who presented with a difficult airway. A 4 day old neonate weighted 3.8 kg with a large mass occupying the oral cavity was scheduled for excision biopsy. The primary diagnosis was epulis. While on the operating table the patient was crying a lot and the mass was fortunately mobile and moving in and out with no clear pedicle. Therefore, the decision was taken to give the patient general anesthesia. An I.V line was inserted and secured. The airway was then assessed while the patient was awake and an assistant displaced the mass and a laryngoscope was placed to visualize the larynx easily. After preoxygenation, inhalation induction of anesthesia was accomplished using sevoflurane. ETT was performed easily. The patient made uneventful recovery after the surgical procedure.

In conclusion, epulis presents a real challenge to anesthesiologists. It can be excised either under local or general anesthesia, depending on the size of its pedicle. If under general anesthesia, assessment of the airway is mandatory for better airway control and safe endotracheal intubation.

INTRODUCTION

Abnormal pediatric airway presents a real challenge to anesthesiologists. Not many anesthesiologists are familiar with pediatric airway abnormality. The commonest causes of difficult airways in pediatrics are congenital abnormalities (1). We report a case of congenital epulis who presented with apparent difficult airway.

CASE REPORT

A 4 day old neonate weighted 3.8 kg and had a large mass occupying the oral cavity. She was scheduled for excision biopsy. The primary diagnosis applied was fibrous tumor (epulis). The preoperative investigations were all within normal limits. Before surgery the general appearance of the neonate represented a true challenge for the anesthetist (Figures 1,2).

Figure 1

Figure 1



Figure 2

Figure 2



While the patient was on the operating table, she was crying and the mass was fortunately mobile and moving in and out with no clear pedicle. Therefore, the decision was taken to give the patient general anesthesia. An I.V line was inserted, secured and flushed with saline for assurance of correct placement. Next, the airway was assessed while the patient was awake and an assistant displaced the mass. A laryngoscope was placed and the larynx visualized. After preoxygenation, inhalation induction of anesthesia was accomplished using sevoflurane 6vol%. Once the patient was asleep manual mask ventilation was performed easily which confirmed a patent airway.

Fentanyl 8 mcg and 2 mg atracurium were given intravenously, and ventilation maintained manually for 2 min. Then, an endotracheal tube (ETT) size 3.5 was inserted successfully. Maintenance of anesthesia was achieved with sevoflurane 1MAC and fentanyl and atracurium if required. After completion of surgery the trachea was extubated while the baby was full awake after reversal of muscle relaxant neostigmine and atropine.

DISCUSSION

The armamentarium of causes of difficult airway in children is quite large. It ranges from congenital to acquired causes. Examples of congenital abnormalities include laryngomalacia, hemangiomas, vascular ring and hypoplastic mandible. Epulis is another

congenital abnormality (2). The "traditional" epulides are similar to gingival hyperplasia in appearance and are usually confined to one or two sites at the gum margin. They are slow growing, firm, and generally covered by intact epithelium. These are classified as fibrous epulides or ossifying epulides depending on the presence or absence of bone. These are much more locally invasive and virtually always invade bone although they do not metastasize. Congenital epulis is a rare lesion of newborn also known as Neumann's Tumor, which is benign in nature. The appearance of the lesion is most common in maxillary alveolar ridge than mandibular with predominance in females than in males (3). Surgical removal is the treatment of choice of epulis (4).

Anesthesia for excision of epulis could be either general or local. Some cases were reported in the literatures where epulis was excised successfully under local anesthesia (5,6). Other reports stated that epulis was excised under general anesthesia (7). In the present case report, epulis was excised under general anesthesia. That was due to unidentified pedicle of the tumor.

In conclusion, epulis presents a real challenge to anesthesiologists. It can be excised either under local or general anesthesia, depending on the size of its pedicle. If under general anesthesia, assessment of the airway is mandatory for better airway control and safe endotracheal intubation.

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