

CASE REPORT

A Case of Meningomyelocele in a 6 month Old Infant: Anaesthesia Management

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ABSTRACT

Paediatric patient posted for meningomyelocele repair poses a challenge for anaesthesiologists in terms of IV cannulation, Airway access, positioning; anaesthesia management focuses on protecting the spinal sac during positioning, managing potential respiratory issues, preventing hypothermia, controlling fluid balance and monitoring for CSF leaks and blood loss.

Our patient was 6 months old, 5kgs with full term normal delivery with other investigations within normal limits. Securing an IV cannulation was difficult, Positioned with cotton padding for the meningomyelocele; and premedicated with Inj Atropine 0.1 mg; Inj Fentanyl 10 mic gm and Induced with Sevoflurane and Intubated under Inj Suxamethonium 10 mg with 4.0 mm ETT and Fixed at 11 cm. Maintained with O₂, N₂O, Inj Atracurium & Isoflurane. Patient was carefully prone with padding and support for head and neck.

HR, SPO₂, ETCO₂, NIBP were monitored and Fluid managed with Isolyte-P. Uneventfully extubated after reversing the NMB with Inj Neostigmine and Inj Atropine and shifted to recovery. A multidisciplinary approach to paediatric anaesthetic management with trained anaesthetist securing IV cannulation, Airway access and care in positioning was helpful in a successful outcome.

KEYWORDS

• Anaesthesia • Meningomyelocele • Paediatric

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INTRODUCTION

Adult patient with cleft palate may pose a problem for airway instrumentation and patient may present with oropharyngeal infections. Hyperthyroidism.¹ The patient with cleft palate when not treated will have a persistent nasal tone to their voice.²

These patients may have conductive deafness and psychosocial problems also.³ Hyperthyroidism may also contribute for gynaecological problem in terms of irregular cycles and bleeding. Patient may be on antithyroid drugs and symptomatic.

CASE REPORT

A 45 year old female with retro-positive status presented with irregular menstrual bleeding, posted for total abdominal hysterectomy under General Anaesthesia as the uterus was big. Incidentally she was Hyperthyroid also with high T4 (9.79 mic gm/dl) and anaemic with Hb of 8gm%.

She was apprehensive with tachycardia and tremors of hands. She was on anti-thyroid medications (Carbimazole and Propranolol). Other Investigations were within normal limits.

She was premedicated with Tab Alprazolam 0.25 mg and Tab Ranitidine 150 mg in the night and morning of surgery. Basal Vitals were HR of 100 and BP of 130/90. Premedicated with Inj Glycopyrrolate 0.2 mg, Inj Midazolam 1mg and Inj Fentanyl 100 mic gm.

Induced with Inj Propofol 150 mg intubated and under Inj Suxamethonium 100 mg. We used a Video-laryngoscope and we were successful without any problems from the cleft palate. Intraoperatively patient had tachycardia and hypertension, responded to Inj Lignocaine 100mg. Intraoperative blood loss was around 500ml and one PCV was transfused. Reversed with Inj Neostigmine and Inj Glycopyrrolate and extubated uneventfully.

DISCUSSION

Anatomical defects and Genetic factors are involved in Cleft lip and Palate incidence.⁴ Endotracheal tube is the standard and safe technique in case of oral defects for anaesthesia.⁵

Adults with cleft lip or palate may pose difficult laryngoscopy and intubation. In our

patient laryngoscopy was done by Video-laryngoscope and intubation was successful. Hyperthyroidism can cause gynaecological problems, anxiety; may have tachycardia, tremors and on antithyroid drugs.

Thyrotoxicosis Symptoms are caused by an excess of beta-adrenergic activity and may include agitation, tremor, weight loss, sweating, tachycardia, fever, arrhythmia, and heart failure.⁶

Atrial fibrillation, congestive cardiac failure, and ischemic heart disease due to thyrotoxicosis, are the most important conditions requiring monitoring by the anaesthesiologist.⁷ During the perioperative periods, the patient's cardiac status should be closely monitored along with the potential development of arrhythmias, cardiac ischemia, and congestive heart failure.⁸

Patients presenting for surgery with thyrotoxicosis should ideally be made euthyroid before surgery, in order to reduce the risk of perioperative thyroid storm.⁶ Our patient was hyperthyroid with anxiety and tachycardia and on medications with increased T4; responded with Inj Midazolam and Inj Lignocaine perioperatively for anxiety and tachycardia.

CONCLUSION

Proper planning for airway management and treating hyperthyroidism for our patient with cleft palate and hyperthyroidism turned out with a successful anaesthesia management.

Conflict of Interest: Nil

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