

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

INTRODUCTION

Paediatric patient posted for meningomyelocele repair poses a challenge for anaesthesiologists

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positioning, managing potential respiratory issues, preventing hypothermia, controlling fluid balance and monitoring for CSF leaks and blood loss.

CASE REPORT

Our patient was 6 months old, female child weighing 5kgs with full term normal delivery; mother was Hypothyroid; this kid had Lower respiratory track infection 1 month back treated. Investigations showed with Hb of 10.1gm%; Total count of 14,000; other investigations within normal limits.

Securing an IV cannulation was difficult, Positioned with cotton padding for the meningocele; and premedicated with Inj Atropine 0.1 mg; Inj Fentanyl 10 mic gm and Induced with Sevoflurane in incremental concentration 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. Paracetamol suppository 80 mg was used.

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.

DISCUSSION

Surgeries in the foetus are challenging for both Anaesthesiologists and Surgeons.¹ Airway, Intravenous cannulation, positioning are major concerns. Prenatal or Intrauterine surgeries are being done and this improves motor outcomes in foetus but the incidence of postoperative complications and risk for Foetus and Mother are more.²

A multispeciality team work with patient-centered approach can be successful in execution of a complex anesthesia plan, ensuring optimal care for this unique patient population.³

Congenital neural tube defect like Meningocele, or open spina bifida is a catastrophic associated with significant morbidity and various devastating complications.⁴

This case involves the delicate decision-making involved in managing

meningocele complications, emphasizes the nuanced balance between benefits and risks, necessitating informed discussions with families for optimal outcomes and the importance of personalized, multidisciplinary care for individuals with meningocele.³

The use of periconceptional folic acid supplementation is essential to reduce the prevalence of neural tube defects (NTDs) with maternal nutrition and quality antenatal care.⁵

One case series proves that modern multidisciplinary postnatal management is effective, prenatal surgery seems to be a highly valuable tool to improve the outcome of patients with high lesions.⁶

CONCLUSION

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.

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