



A CASE SERIES DISCUSSING THE ANAESTHETIC MANAGEMENT OF NEWBORNS AND CHILDREN POSTED FOR SURGICAL CORRECTION OF THORACOLUMBER MENINGOMYELOCELE

Anaesthesiology

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KEYWORDS

Introduction :

Meningomyelocele is a complex congenital spinal anomaly, results from neural tube defect during 1st four weeks of gestation. Anaesthesia of a newborn and infant poses different types of challenges to anesthesiologist. Dorsolumber meningomyelocele adds to the difficulty with positioning which leads to difficult Intubation. Here, we present a case series of anaesthetic management of 9 patients posted for the same.

Aim of study :

To characterize the current perioperative management of newborns and children having thoracolumber meningomyelocele.

Methods :

TABULAR PRESENTATION OF ANAESTHETIC MANAGEMENT OF 9 PATIENTS OPERATED FOR THORACOLUMBER MENINGOMYELOCELE AND PERIOPERATIVE EVENTS

SR NO	AGE/SEX	SURGERY	INDUCTION AGENT	MAINTANANCE AGENT	MUSCLE RELAXANT	ANALGESIC AGENT	REMARKS
1	7 Y/M	EXCISION	THIOPENTAL SODIUM	SEVOFLURANE	ATRACURIUM	I.V PCM	NO COMPLICATIONS OCCURED INTRA-OPERATIVELY, VITALY STABLE AND EXTUBATED IMMEDIATELY AFTER OPERATION.
2	5 Y/M	EXCISION	THIOPENTAL SODIUM	SEVOFLURANE	ATRACURIUM	I.V PCM	NO COMPLICATIONS OCCURED INTRA-OPERATIVELY, VITALY STABLE AND EXTUBATED IMMEDIATELY AFTER OPERATION.
3	7 D/M	EXCISION	SEVOFLURANE	SEVOFLURANE	-	I.V PCM	INTRA-OPERATIVELY VITALY STABLE, SHIFTED TO NICU INTUBATED AND KEPT ON PRESSURE SIMV MODE . AFTER ONE DAY PATIENT EXTUBATED
4	2 M/M	EXCISION	FENTANYL , PROPOFOL	SEVOFLURANE	ATRACURIUM	I.V FENTANYL	NO COMPLICATIONS OCCURED INTRA-OPERATIVELY, VITALY STABLE AND EXTUBATED IMMEDIATELY AFTER OPERATION
5	7 M/M	VP SHUNT	FENTANYL , PROPOFOL	SEVOFLURANE	ATRACURIUM	I.V PCM	NO COMPLICATIONS OCCURED INTRA-OPERATIVELY, VITALY STABLE AND EXTUBATED IMMEDIATELY AFTER OPERATION
6	3 M/F	VP SHUNT	FENTANYL , THIOPENTAL SODIUM	SEVOFLURANE	ATRACURIUM	I.V PCM	INTRA OP AFTER INTUBATION, REGURGITATION OCCURRED. SPO2 FALLS UPTO 10% . INJ. ADR. ,NEB. ADR. AND INJ. ANTIBOITICS WERE GIVEN. SPO2 IMPROVED TO 100%. PT. REINTUBATED AND SURGERY WAS POSTPOND. PT KEPT ON CPAP MODE OF MECHANICAL VENTILATION AND AFTER 5 HRS PT EXTUBATED.
7	8 D/F	EXCISION	FENTANYL	SEVOFLURANE	-	I.V PCM	NO COMPLICATIONS OCCURED INTRA-OPERATIVELY, VITALY STABLE AND EXTUBATED IMMEDIATELY AFTER OPERATION
8	5 D/ F	EXCISION	SEVOFLURANE	SEVOFLURANE	-	I.V PCM	NO COMPLICATIONS OCCURED INTRA-OPERATIVELY, VITALY STABLE AND EXTUBATED IMMEDIATELY AFTER OPERATION
9	11 M/M	EXCISION	FENTANYL, THIOPENTAL SODIUM	SEVOFLURANE	ATRACURIUM	I.V PCM	NO COMPLICATIONS OCCURED INTRA-OPERATIVELY, VITALY STABLE AND EXTUBATED IMMEDIATELY AFTER OPERATION

DISCUSSION :

MMC is associated with several Respiratory and cardiovascular

complications like hypoventilation, bronchospasm, laryngospasm and bradycardia, tachycardia respectively. General anaesthesia is preferred

for paediatric neurosurgeries as it avoids an increase in intracranial pressure and lessens significant hemodynamic instability. Complications are manageable through early and precise diagnosis, meticulous preoperative preparations, vigilant intraoperative monitoring and preparation for anticipated complication.

Limitations of the study:-It is a retrospective study carried out in small number of children without any long term follow up. Therefore, the study may not reflect the true morbidity.

CONCLUSION :

Neonates are prone for anaesthetic complications. Safe and better management can be provided by fully understanding the age related pathophysiology, dealing with the challenges, maintainance of normothermia and normovolemia.

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