



ORIGINAL RESEARCH PAPER

Anesthesiology

ANAESTHETIC MANAGEMENT IN A CASE OF CEREBELLAR HEMANGIOBLASTOMA IN SITTING POSITION

KEY WORDS:

Dr Chandresh Shah

Dr Vidya Sriram* *Corresponding Author

Dr Shalini Sahu

Dr Vrushali Moharil

INTRODUCTION

Hemangioblastomas are tumors of the central nervous system that are vascular in origin. Hemangioblastomas are most commonly composed of stromal cells in small blood vessels and usually occur in the cerebellum, brain stem or spinal cord. Hemangioblastomas usually occur in adults in less than 2% patients. Men and women are approximately at the same risk. The treatment for hemangioblastoma is surgical excision of the tumor.

History

A 40 year old male patient weighing 55kg presented with chief complaints of headache since 4months and vomiting since 3 months. There was no history of any other significant medical or surgical history.

On General examination- Patient is of average built & is well nourished. Vitals- P-78/min, BP -122/70 mm/hg, Airway examination – mouth opening – adequate. Mallampati : grade-II
 On Systemic examination- RS- Bilateral normal breath sound, CVS - S1-S2 heard, no murmur, CNS –patient is Conscious, Oriented, follows verbal command, normal gait, no neurological deficit

Investigations: CSF -colourless, clear, Blood investigation-normal, Chest X-ray –normal, ECG and 2D echo-normal MRI brain was done which showed 30x30x40 mm size homogenous enhancing mural nodule in superior aspect of 4th ventricle with obstructive hydrocephalus, pressure effect over cerebral peduncles and cerebellar tonsillar herniation suggestive of hemangioblastoma.

Anaesthesia risk consent of ASA IV was explained and taken as per location of tumor, bleeding risk, and chances of embolism, need for ventilatory support in post operative period. Patient was advised for morning dose of inj. valproate on day of surgery.

Blood and blood products were kept ready.

Pre-operative preparation-Monitoring-ECG, SpO₂, Invasive & Non-invasive BP, EtCO₂, temperature monitoring. Two large bore iv cannula secured (no.16 intra catheter) Arterial line was taken for invasive blood pressure monitoring. Pre-loading -1000 ml ringer lactate iv Premedication- Inj. Ondansetron 2 mg, Inj. Glycopyrrolate 0.2 mg iv, Inj. Fentanyl 100 mcg iv Pre oxygenation : with Bain s circuit with 100% oxygen for 5 min.

Induction was done with Inj. Thiopentone 5 mg/kg iv and Inj. Vecuronium 0.15 mg/kg iv Inj. Xylocard 1mg/kg iv was given.

Intubation was done with oral 8.5mm armoured cuffed endotracheal tube. Bilateral air entry checked, EtCO₂ attached Maintenance-Inj. Vecuronium 0.01mg/kg iv incremental Inhalational agent-1.5% sevoflurane+oxygen (Nitrous oxide avoided due to risk of pneumocephalus).

Sitting position given slowly over period of 30 min with continuous

monitoring of intra arterial blood pressure, ETCO₂, and ECG and loading of intravenous fluid.

Proper emptying of leg veins by elevation of lower limbs, elastic stocking were applied. Then gradually head & legs elevation were done. Head fixed in pins. 2 finger distance were maintained between the mandible and the sternum. Both the hands were kept on hand rest and tied, horizontally and knees were slightly flexed. Proper padding was kept at all bony prominences. Eyes were protected by applying neosporine ointment and padding. Patient was covered with warming blanket. Patient was hemodynamically stable throughout operation which lasted for 6 hours Intra op fluids-5200ml crystalloids, 2 unit of P.C.V., 100 ml Mannitol. Intra op urine output-2500ml. Analgesia with Inj. Diclofenac 75 mg iv Extubation & reversal was done after putting the patient in supine position slowly. Reversal was done with Inj. Glycopyrrolate 8 mcg/kg iv and Inj. Neostigmine 0.05 mg/kg iv. Extubation was done when the patient was following verbal command and achieved adequate tidal volume.

Post op vitals-patient conscious follow verbal command, Pulse-86/min BP-128/80 mm of Hg Patient was shifted to ICU for observation, O₂ was given through venti mask.



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