

Anaesthetic Management of a Cesarean Delivery in a Patient with Preexisting Neurological Deficit with Mild ASD OS Type Posted for Elective Surgery

Dr. B. Prameela¹, M. N. Ramesh Kumar², Sudheer Kumar³

¹ 3rd year Post Graduate, Department of Anaesthesiology, Srivenkateswara Medical College, Tirupati Andhra Pradesh, India

² Assistant Professor, Department of Anaesthesiology, Srivenkateswara Medical College, Tirupati Andhra Pradesh, India

³ Professor and HOD, Department of Anaesthesiology, Srivenkateswara Medical College, Tirupati Andhra Pradesh, India

Abstract: Atrial septal defect most common a cyanotic congenital cardiac anomaly. major challenges in the management of ASD with pulmonary hypertension. Hypoxemia, hypercarbia, hypothermia leading to reversal of shunt (Eisenmenger syndrome).

Keywords: Atrial septal defect Pulmonary hypertension Reversal of shunt Cardiac output, preload, heart rate Pulmonary vascular resistance, systemic vascular resistance hypoxia, hypercarbia, hypothermia

1. Introduction

Atrial septal defect is a common a cyanotic congenital heart disease which is due to patent foramen ovale

ASD is the most common cardiac congenital lesion in women of child bearing age

Anaesthetic management of parturient with atrial septal defect requires understanding of its physiological adaptations and also the drugs that alter the peripheral vascular resistance

2. Case Report

We report a case of 25 years old primi TGA with hypothyroidism with right leg foot drop with history of spine surgery with mild ASD OS type trivial TR with EF 68% posted for elective LSCS under general anaesthesia. Patient was on tab. thyroxine 25 mcg OD

On examination her vitals were:

- 1) Pulse rate - 104Bpm
- 2) BP - 120/70 mmHg
- 3) SPO2 - 96% on room air

CVS: S1, S2 normal, no added sounds

RS: B/E air entry present

CNS: B/L pupil 2 - 3 mm, reacting to light

Investigation:

- 1) Hemoglobin - 9.3gm%
- 2) platelets - 1.4 lakhs
- 3) Renal function test - Normal
- 4) Thyroid profile - Normal
- 5) ECG - Normal
- 6) 2D ECHO - No RWMA, EF68%, MILD ASD OS TYPE, Trivial TR.

Airway:

Mouth opening - adequate

MPG grade 2

TMJ - Mobile

TMD: > 6cm

Dentition: Normal

Intra Operative Management:

In theatre, a multi parameter monitor was attached to the baseline, with pulse oximeter, noninvasive BP, five lead ECG baseline values were within normal limits.

Intravenous access was secured with 18 G cannula, 250ml of Ringer lactate infused before general anaesthesia and then continued as 10ml/kg/hr

Premedication with inj. glycopyrrolate 0.2 mg given and preoxygenated with 100% oxygen for 3 min

Induced with propofol 100 mg, intubated with inj. succinylcholine 75 mg with 7mm size of ET tube, checked bilateral equal air entry and connected to mechanical ventilator

Maintenance with N2O: O2 + sevoflurane +inj. atracurium

Fentanyl 50 mcg given after delivery

Hemodynamic parameters were stable throughout the procedure

Alive fetus of weight 3.1 kg was delivered with APGAR score of 8 - 9 at 1 min, intravenous infusion of oxytocin 5 - 10 units/hr started

Post Operative Management:

Patient was shifted to recovery room for post operative care where she was monitored for 24 hrs

Volume 11 Issue 11, November 2022

www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

Injection diclofenac+ inj. Tramadol100 mg infusion given for postoperative pain relief

Patient was shifted to ward and discharged from the hospital on 6th postoperative day without complications.

Antithyroid drug were continued during post operative period

3. Discussion

In ASD there is left to right shunt increases the blood flow towards right side increases the pulmonary vascular resistance leads to pulmonary hypertension. Due to left to right shunt there is decreased blood flow on left side from LA to LV so end diastolic volume of LV decrease it leads to decreased cardiac output

Anaesthetic goals

- 1) Maintenance of adequate preload
- 2) Maintain normal heart rate, sinus rhythm and force of contractility
- 3) Maintenance of low pulmonary vascular resistance and normal systemic vascular resistance
- 4) Avoidance of hypoxia, hypercarbia, acidosis, and hypothermia which may increases the right to left shunt
- 5) A voidance of air bubble in intravenous drip sets.

4. Conclusion

We here choose general anaesthesia than neuraxial anaesthesia due to history of spine surgery and foot drop and also to prevent hypotension in ASD because hypotension in ASD reverses the shunt i. e right to left.

References

- [1] David H Chestnut. Principles and practice of obstetric anaesthesia Elsevier Mosby - Philadelphia, Pennsylvania2004; 707 - 33
- [2] Kuczhowski KM. Labour analgesia for parturient with cardiac disease - what does an obstetrician need to know? Acta Obstet Gynecol Scand 2004; 83: 223 - 33.
- [3] Khan MJ, Bhatt SB, krye JJ. Anesthetic consideration for parturient with primary pulmonary Hypertension: review of literature and clinical presentation. International J of obst. Anesthesia 1996 5 (1): 36 - 42. doi: