



## ANAESTHESIA MANAGEMENT OF AN ADULT PATIENT WITH UNCORRECTED ATRIAL SEPTAL DEFECT POSTED FOR ERCP (ENDOSCOPIC RETROGRADE CHOLANGIOPANCREATOGRAPHY).

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### ABSTRACT

Anaesthetic management of adult patient with congenital heart disease coming for non – operating procedure is challenging . Knowledge of these problems allow the anaesthetist to select an appropriate technique to provide safe and effective anaesthesia. We report a case of adult patient with uncorrected Large ASD (Atrial septal defect) posted for ERCP . We choose to give Total intravenous sedation over General anaesthesia with intubation to this patient to prevent adverse hemodynamic changes and stress response related to intubation and extubation .

**KEYWORDS :** Congenital Heart Disease, Asd, Intubation, Extubation, General Anaesthesia.

### INTRODUCTION

Atrial septal defect is most common Acynotic cardiac anomaly accounting for 10% of grown up congenital heart disease, characterized by left to right shunt . Patient often remain asymptomatic until middle age. Predominant complications are atrial arrhythmias and paradoxical embolism. Perioperative preparation for the procedure , anaesthesia management and management of common issues like hypothermia, hypoxemia, hypovolemia, hypercapnia is crucial as it can cause reversal of shunt. ERCP is done in endoscopy room which is administration of anaesthesia outside the operating room also known as NORA ( Non Operating Room Anaesthesia) itself is a challenging for anaesthetist.

### Case Description

A 22 year old male patient , case of congenital heart disease large OS-ASD(Asymptomatic) came with complaints of fever and jaundice. USG abdomen suggestive of gall bladder wall thickened with sludge. Patient underwent open cholecystectomy with drain placement for gall bladder sludge. After 10 days he developed pain in abdomen , fever, pus discharge from drain site which was managed with antibiotics. Then he developed shortness of breath and orthopnoea with pain and swelling in right hypochondriac region. On admission routine investigations done. chest x ray shows bilateral infiltrates suggestive of pulmonary oedema . started on Lasix infusion and CPAP given. 2D echocardiography showed 14 mm ASD. CT abdomen done suggestive of proximal CHD leak . Patient underwent ERCP with CBD stenting for bile leak .After 5 weeks patient developed bleeding PR with Malena with drop in haemoglobin for which blood transfusion was done and patient taken for ERCP guided stent removal.

On Preoperative evaluation patients' effort tolerance was 1 flights of stairs, room air saturation 97%. Other blood investigations within normal limit. 2D echocardiography showed large 32 mm OS -ASD with left to right shunt, mild PH, left ventricular ejection fraction is 60%. The patient was on tablet warfarin 3 mg and tablet Lasilactone 20 mg.

The valid written informed consent was taken from patient and relative. All resuscitative and cardiac drugs were kept ready meticulous attention was given so that all syringes and intravenous tubings were free of air bubbles to prevent paradoxical air embolism. standard anaesthesia monitors attached. Intravenous access secured. Oxygen supplementation with Hudson's mask @ 6L /min was given. Left lateral position given. Injection paracetamol 1gm iv given, injection fentanyl 1 ug/kg , midazolam 0.03 mg /kg ,injection

propofol 1 mg /kg given for maintenance. Maintenance IV fluid ringer lactate given at 2ml/kg/hour . Procedure was uneventful. The patient was monitored in the recovery room for few hours and then shifted to ward.

### DISCUSSION

Anaesthetic goals in patient having acynotic heart disease (left to right shunt) are to maintain or increase systemic vascular resistance (SVR) and to minimize pulmonary vascular resistance (PVR) and prevent reversal of shunt and hypercynotic episodes intraoperatively. General anaesthesia with endotracheal tube was not our first choice, as patient can have prolonged induction and uncontrolled surge in hemodynamic with possibility of reversal of intracardiac shunt . intubation and extubation response lead to imbalance of SVR to PVR which can lead to cyanotic episode. Pain management is a critical factor during intra and postoperative period . opioids has been the primary intervention for the pain management in patient with CHD .

In our case we avoided general anaesthesia with endotracheal intubation and gave total intravenous sedation with stable hemodynamic and good perioperative outcome.

### REFERENCES

1. Kharge ND, Motghare AD, Soitkar R, et al. Anesthesia Management of Cardiac Patient Posted for Noncardiac Surgery. *Res Inno in Anesth* 2021;6(1):23-24.
2. H.-J. Priebe, Preoperative cardiac management of the patient for non-cardiac surgery: an individualized and evidence-based approach. *BJA: British Journal of Anaesthesia*, Volume 107, Issue 1, July 2011, Pages 83–96
3. Yen P. ASD and VSD Flow Dynamics and Anesthetic Management. *Anesth Prog.* 2015 Fall;62(3):125-30. doi: 10.2344/0003-3006-62.3.125. PMID: 26398131; PMCID: PMC4581019.
4. Madaan, V., Gupta, R. Anaesthetic management of a case of large ASD with severe pulmonary hypertension—case presentation. *Ain-Shams J Anesthesiol* 14, 32 (2022). <https://doi.org/10.1186/s42077-022-00232-3>