ORIGINAL RESEARCH PAPER
Volume - 12 | Issue - 04 | April - 2023 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

ANAESTHETIC MANAGEMENT OF PATIENT WITH VALVULAR HEART DISEASE POSTED FOR CAESAREAN SECTION – A CASE REPORT

Anaesthesiology

Dr. Nirupama BI Postgraduate, Dept of Anaesthesiology, Chettinad Hospital and Research Institute
Prof. Dr. Anand. S Professor, Dept of Anaesthesiology, Chettinad Hospital and Research Institute

KEYWORDS

INTRODUCTION

Cardiac disease is the most common cause of mortality in pregnancy. Rheumatic heart disease is the most common cause of valvular heart disease.

Pulmonary edema, right ventricular dysfunction and thromboembolic events are acute complications of patients with mitral stenosis and mitral regurgitation.

Perinatal period is most risky as there will be increase in cardiac output and rise in preload, patients are more prone for cardiac decompensation. So, meticulous a nesthetic management is of crucial importance.

Case Report

A 26-year-old female multi gravida G2P1L1 with 37weeks of gestation came for safe confinement.

Diagnosed to have mitral valve regurgitation and mitral valve stenosis since first pregnancy and evaluated in GH for Rheumatic heart disease and diagnosed to have rheumatic heart disease.

Echocardiography showed GRADE III ECCENTRIC MITRAL REGURGITATION AND MILD MITRAL STENOSIS WITH DILATED LEFT ATRIUM AND VENTRICLE, mild pulmonary hypertension, EJECTION FRACTION IS 60%., MVOA is 2.5 cm square known case of GESTATIONAL DIABETES MELLITUS on meal plan.

Preoperatively patient was on tablet LASIX 40 MG OD and on infective endocarditis prophylaxis

On Examination:

PR-86/m Bp- 130/90mmHg Hb-11.9gm/dl, height :160 cm, weight:68kgs Ultrasound - Single intrauterine foetus of Gestational age corresponds to 37 weeks

Management Intraoperative

Patient underwent caesarean section due to previous section. Since it is grade 3 mitral regurgitation and mild mitral stenosis, the significant lesion is mitral regurgitation.so we preferred combined spinal epidural as the mode of anaesthesia.

Under aseptic precautions, using 18 gauge Tuohy needle, we administered epidural anaesthesia at the level of L3-L4 and epidural catheter was fixed at 12 cm, then using 27 gauge Quincke needle ,spinal anaesthesia was performed with a dose of 1.6 ml of 0.5%heavy bupivacaine with 0.2 ml of 60 mcgs buprenorphine at the level of L4-L5 in single attempt. Sensory blockade at the level of T6, level found to be adequate.

A male baby delivered and cried immediately after birth with Apgar score of 8/10, 9/10 weight -2.8 kg.

Intravenous fluids: approx 750 ml of ringer lactate
blood loss :400 ml

Patient was hemodynamically stable throughout the procedure and shifted to recovery room for further monitoring.

Post operative events were uneventful.

DISCUSSION

Pregnancy with cardiac disease is very common .

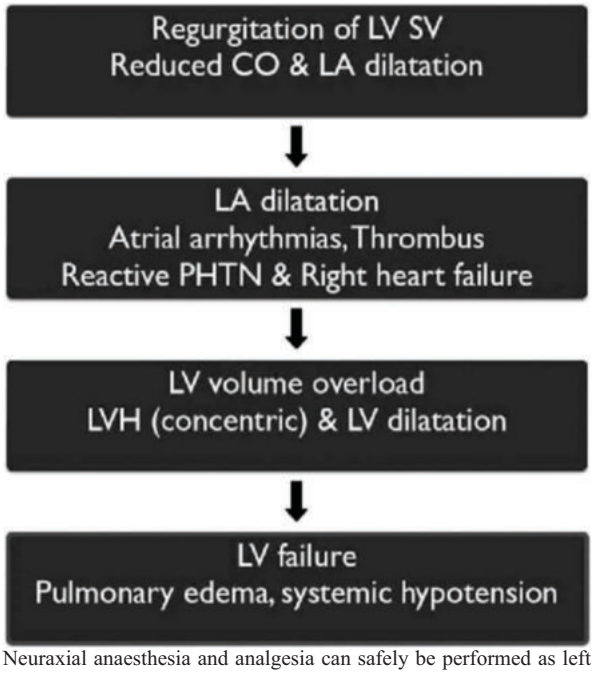
The underlying hyper coagulable state of Pregnancy increases the risk of thromboembolic events and atrial tachyarrhythmias in patients with mitral stenosis and regurgitation.

The basic hemodynamic derangement in mitral regurgitation is a decrease in forwards left venturecular stroke volume and cardiac output.

The anesthetic goals include prevention of an increase in SVR,maintenance of a slightly increased heart rate ,maintenance of venous return and sinus rhythm.

Patients are at risk for both intrapartum and postpartum hemodynamic compromise .

Stenotic valvular lesions are less well tolerated than regurgitant lesions because increased cardiac output increases the transvalvular gradient by 50%worsening the progress of the patient and the foetus.



Neuraxial anaesthesia and analgesia can safely be performed as left ventricular function is good EF>60%

Intrapartum and postpartum hemodynamic monitoring is often helpful.

Non invasive vigilant hemodynamic monitoring done After delivery care should be taken with the administration of the uterotonic agent as it may increase peripheral vascular resistance.

CO Neuraxial anaesthesia and analgesia can safely be performed as left ventricular function is good EF>60%

Intrapartum and postpartum hemodynamic monitoring is often helpful.

Non invasive vigilant hemodynamic monitoring done After delivery care should be taken with the administration of the uterotonic agent as it may increase peripheral vascular resistance.

CONCLUSION

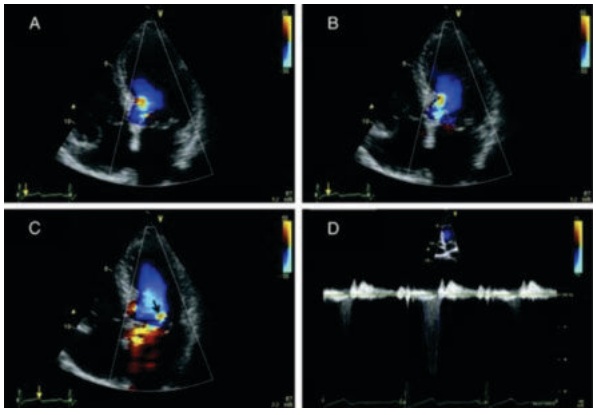
Rheumatic disease is a common and serious complication of pregnancy in developing countries.

Pregnant women suffering from the sequelae of rheumatic fever benefit from the combined expertise of specialist cardiologists, obstetricians and anaesthesiologists during the pregnancy.

Undiagnosed disease may also be identified for the first time during pregnancy, and the process of delivering obstetric care provides an opportunity to secure community of postnatal care with an emphasis on preventive therapy and contraception.

Rheumatic disease is a common and serious complication of pregnancy in developing countries.

Pregnant women suffering from the sequelae of rheumatic fever benefit from the combined expertise of specialist cardiologists, obstetricians and anaesthesiologists during the pregnancy. Undiagnosed disease may also be identified for the first time during pregnancy, and the process of delivering obstetric care provides an opportunity to secure community of postnatal care with an emphasis on preventive therapy and contraception.



REFERENCES

1) Stoelting's Anaesthesia and co-existing disease, 7 th Edition by Roberta L. Hines, Latherine E. Marschall
2) International Journal of Reproduction, Contraception, Obstetrics and Gynecology Mishra V et al. Int J Reprod Contracept Obstet Gynecol. 2017 Jun;6(6):2657-2659
3) Chestnut's Obstetric Anaesthesia principle and practice 5 th Edition by David H. Chestnut, Cynthia A. Wong, Lawrence C. Tsen, Warwick D. Ngan Kee, Yaakov Beilin, Jill M. Mhyre.