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Research Paper

Anaesthetic Management of a Patient with Right Adnexal Mass for Staging Laparotomy with History of Severe Mitral Regurgitation and Global LV Hypokinesia

DR.LEKSHMI R
JUNIOR RESIDENT , DEPARTMENT OF ANAESTHESIOLOGY ,GOVT MEDICAL COLLEGE KOZHIKODE.

DR. K.R. RADHA, HOD
DEPARTMENT OF ANAESTHESIOLOGY,GOVT MEDICAL COLLEGE KOZHIKODE)

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I. INTRODUCTION:-

Mitral regurgitation(MR) is much more common than mitral stenosis and it affects almost 2% population in the industrialised countries. Isolated MR can be associated with ischemic heart disease or result from papillary muscle dysfunction, mitral annular dilatation or rupture of chordae tendinae. Mitral regurgitation due to rheumatic fever is uncommon and is usually associated with some degree of mitral stenosis. Good pre operative optimization and intra operative monitoring is essential in MR patients with non- cardiac surgery.

Severe mitral regurgitation coexists with ischemic heart disease. The demands of this thickened muscle mass exceed the ability of even normal coronary arteries to deliver adequate amounts of oxygen.The following considerations should be taken in the intraoperative management of mitral regurgitation[1]. Prevent bradycardia and increase in systemic vascular resistance and myocardial depression, minimise drug induced myocardial depression. So anaesthetic management of such patients may be challenging.

II. CASE REPORT:-

70 year old female was admitted with complaints of abdominal discomfort and distention diagonosed as right adnexal mass for staging laparotomy.

Pre anaesthetic check up revealed past history of cardiac disease since last 6 years, now presented with moderate to severe MR and global LV hypokinesia on echocardiography. Patient was on aspirin and clopidogrel 75mg once daily, Tab. Metoprolol 50 mg OD. Had complaints of exertional dyspnoea grade 3. Also patient had history of type 2 DM on insulin.

Routine blood investigations were under normal limits. Chest x ray revealed mild cardiomegaly and ECG showed T inversion V2 to V6. Patient was advised to stop tab. Clopidogrel 5 days prior to surgery[2]. Pre operative echocardiography findings were also noted[3] . On examination, patient's vitals were stable . Heart sounds were heard with a sysyolic murmur at mitral area radiating to axilla.

On the day of surgery the patient was shifted to OT and monitors were attached after checking the NPO status and written informed consent. One wide bore IV canula was secured on left forearm. NIBP , SPO2, HR and ECG was monitored. Infective endocarditis prophylaxis was given with injection ampicillin and gentamycin[4].

Plan of anaesthesia was fractional spinal anaesthesia with epidural block. Epidural block was given at the level of L1 and L2 space under strict aseptic precautions under LA with 18 G Tuohy's needle. Test dose with inj. Lignocaine 1.5% with adrenaline 3ml was given. Test negative for intravenous OR Intrathecal insertion.

Subarachnoid block was given with 23 G Quincke's needle at the level of L3-L4 space with inj.bupivacine 0.5% heavy 2ml + 20 microgram fentanyl as additive, given as fractional dose 1.8 ml + 0.6 ml at 60 seconds interval.

Patient shifted to supine position . Epidural bolus was given wth 2 ml sterile water and 3ml inj.lignocaine with adrenaline . Epidural was given to attain adequate sensory level for performing the

surgery[5].Patient's vitals were stable and block was adequate. Surgery started , vitals were stable through out the surgery. Mean BP was maintained between 60 to 70mmhg range. No events of bradycardia was noted. After completion of surgery vitals were monitored from the RR and HDU. Epidural pump was connected with infusion Bupivacaine 0.0625% for post op analgesia. Peri operative vitals were stable.

III. DISCUSSSION:-

The main aim of anaesthetic management is to maintain heamodynamic stability and to prevent ischemic events .The incidence of infective endocarditis should also be prevented. The goal is to improve forward left ventricular stroke volume and decreased regurgitant fraction. Anaesthetic management by fractional spinal + epidural block proved effective and safe in this patient. The duration of ICU is reduced when compared to GA and was uneventful due to effective management of post- operative pain by continuous low dose epidural analgesia.

To conclude ,low volume incremental dose of local anaesthetic has more cardiovascular stability and less mortality when compared to single dose ,higher volume of local anaesthetic. Pre operative assessment of cardiac status ,optimising cardiac status, good post operative analgesia and monitoring are vital parameters which have to be given prime importance for reducing the mortality

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