



SEGMENTAL SPINAL ANAESTHESIA FOR CAESAREAN SECTION IN A PATIENT WITH SEVERE MITRAL STENOSIS WITH MODERATE PULMONARY ARTERY HYPERTENSION

Anesthesiology

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KEYWORDS

BACKGROUND-

Valvular heart disease is a common cause of cardiovascular disease in women of childbearing age. In a patient of MS (Mitral Stenosis) with PAH (Pulmonary Artery Hypertension) our main concern as an anesthesiologist is to peri- operatively avoid tachycardia, hypo/hypervolemia, decreased Systemic Vascular Resistance, hypothermia, increased pulmonary vascular resistance and to maintain a normal sinus rhythm. Keeping in mind the hemodynamic stability that is required, segmental spinal anaesthesia is emerging as an excellent modality.

This study seeks to observe the outcome of a patient with severe MS with moderate PAH undergoing an emergency C section under thoracic segmental spinal anaesthesia with isobaric Levobupivacaine.

Case Report-

A 23 year old primigravida patient with obstetric score G1P1 with (36+4) weeks of gestation with freshly diagnosed severe MS and moderate PAH was posted for emergency C-section in view of prolonged rupture of membrane. Patient had chief complaint of easy fatigability and breathlessness on climbing 8-10 stairs (NYHA III) with Metabolic Equivalent score of less than 4. She didn't have any other co-morbidity.

Airway examination was Mouth opening 3 finger and Mallampati score II. Her starvation status was inadequate. Her on table vitals were stable. She had Grade 3 Mid Diastolic murmur at the apex with pre-systolic accentuation.

Chest was bilaterally clear with no wheezing, crepitus or any other added sounds. ECG showed P-mitrale in II, III, aVF and 2D-Echo was suggestive of severe MS (0.9cm²) with moderate PAH with grade II MR and moderate TR along with mildly dilated LA.

Other investigations were within normal limits. High risk consent was taken. Central line was placed. Defibrillator and cardiac team was kept on standby. Airway trolley as well as all the preparation of GA was kept ready. Infective Endocarditis prophylaxis was given.

Under aseptic precautions, segmental spinal was given using 25G Quincke needle at T10-11 space with 1.4cc of Injection Levobupivacaine 0.25% and 30 micrograms Injection Bupriganes added to it. Sensory level T6-L1 (dense) was achieved. After delivery of baby, injection Fentanyl 100 microgram and Injection Carbetocin 100 microgram was given over 10 minutes.

All throughout the surgery, hemodynamics were markedly stable and procedure was uneventful. Intra-operatively total fluid given was 300ml of RL with continuous CVP monitoring and post op fluid was maintained at 1ml/kg/hr. Total output was 150ml and blood loss was 300ml + placenta. For post op analgesia, bilateral TAP block was given with 40ml Inj Bupivacaine 0.25% along with Inj Dexamethasone 8mg as additive.

RESULT-

TIME	BP (mmHg)	PR (bpm)	SPO2	RR	CVP
4:00 (PRE INDUCTION)	136/98	86	100	18	12
4:05 (POST INDUCTION)	130/90	94	100	20	11
4:10	118/86	92	100	21	13
4:15	120/82	92	100	18	12
4:20	116/78	88	100	19	13
4:25	124/80	91	100	22	13
4:30	122/82	92	100	17	11
4:35	118/80	89	100	18	13
4:40	124/86	93	100	16	12

Rescue analgesia with diclofenac suppository was given when VAS score was 5 at 12th hour.

DISCUSSION

The procedure went smoothly without any complications and with good hemodynamic stability. Motor levels were adequate, as muscle relaxation was good. At the end of the procedure patient had Bromage scale III which indicates segmental motor block along with segmental sensory block. Post operatively patient was hemodynamically stable with pain relief up to 12th hour, following which Diclofenac suppository as rescue analgesia was given

CONCLUSION

Segmental Spinal Anaesthesia is remarkable and has opened a Pandora's Box for the anaesthetic management of cardiovascular diseases in pregnant female who are in urgent need of C-section

REFERENCES

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