VOLUME - 13, ISSUE - 07, JULY - 2024 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra

Original Research Paper

Anaesthesiology

CESAREAN SECTION UNDER SUBARACHNOID BLOCK IN A PATIENT WITH CHRONIC INFLAMMATORY DEMYELINATING POLYRADICULONEUROPATHY

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ABSTRACT

Introduction: Chronic inflammatory demyelinating polyradiculoneuropathy (CIDP) is an inflammatory disorder of the peripheral nervous system .It has progressive or relapsing signs involving more than one limb ,progresses steadily in stepwise manner or presents with repeated episodes of Symmetrical extremity weakness with loss of sensation and areflexia . Some patients present with predominantly motor, sensory, or autonomic involvement. Prevelance of CIDP ranges from 0.7 to 10.3 cases per 100,000 people **Case Report:** A 28yrs old woman G2, P1,D(1+1+1) with previous normal vaginal delivery was scheduled for elective cesarean section at term gestation, and had no medical co-morbidities other than CIDP, which was first diagnosed at age 24 years. After the initial diagnosis she had received corticosteroids and immunosuppressive drugs . The last cycle of this therapy had taken 10 months before her admission for delivery. During the course of her pregnancy no specific treatment for CIDP was given. The patient was closely supervised by her obstetrician and neurologist. **Conclusion-** Because of its rarity, there are no specific guidelines for the anesthetic management of patients with CIDP. Considering the risks we preferred Subarachnoid block over GA. Since there is risk of delayed post op motor recovery from subarachnoid block . Patient should be intimated before and same documented in PAC.

KEYWORDS :

INTRODUCTION

Chronic inflammatory demyelinating polyradiculoneuropathy (CIDP) is an inflammatory disorder of the peripheral nervous system. It has progressive or relapsing signs involving more than one limb, progresses steadily in stepwise manner or presents with repeated episodes of Symmetrical extremity weakness with loss of sensation and areflexia. Some patients present with predominantly motor, sensory, or autonomic involvement. Prevelance of CIDP ranges from 0.7 to 10.3 cases per 100,000 people. names Congenital dystrophia brevicollis, cervical vertebral fusion syndrome.

Case Report

A 28yrs old woman G2, P1,D(1+1+1) with previous normal vaginal delivery was scheduled for elective cesarean section at term gestation, and had no medical co-morbidities other than CIDP, which was first diagnosed at age 24 years. After the initial diagnosis she had received corticosteroids and immunosuppressive drugs. The last cycle of this therapy had taken 10 months before her admission for delivery. During the course of her pregnancy no specific treatment for CIDP was given. The patient was closely supervised by her obstetrician and neurologist.

Obstetric History

1ST PREGNANCY: assisted conception All trimesters uneventful. 2nd PREGNANCY: conceived spontaneously All trimesters uneventful

Examination

General Examination

- Moderately nourished young women.
- Conscious & coherent
- Vitals –BP – 120/80mmhg PR – 84bpm

RR – 16bpm
SPO2 – 98%@RA

Systemic Examination

CVS: S1,S2 present.
RS: Bilateral air entry present
ABDOMEN: Soft

Obstetric Examination:

Fundal height corresponding to gestational age with single live fetus with Breech presentation.

CNS:

- Tone – Normal in all 4 limbs.
- Power – B/L UL – 5/5.
- B/L LL – 4/5.
- Reflexes – Normal.
- No sensory deficit.
- No cranial nerve dysfunction

Investigations

- CBP: Hb – 13.1 g/dl, PLT – 1,85,000c u.Cm , WBC 10,000 cu.Cm
- B.urea -14.9 mg/dl, S.creatinine-0.43.
- Electrolytes Na2+-135 meq/l, K+-5 meq/l
- Cl-98 meq/l ABG : Normal

NERVE CONDUCTION STUDIES
Symmetrical motor and sensory polyradiculopathy
NERVE BIOPSY: Demyelination
CSF ANALYSIS: NORMAL

Perioperative Management

PRE-OP: High risk consent obtained. NBM status confirmed. Neurological status documented. INTRA-OP: Two wide bore cannulas secured.

- Routine monitoring NIBP, HR, ECG,SpO2, RR and Urine output.
- IV infusion started with Ringer's lactate.
- Intraoperatively SAB was performed at L3 to L4 level,2ml of hyperbaric Bupivacaine 0.5% was injected intrathecally, level of block was attained till T6 .
- A healthy 3kg MALE baby was delivered with APGAR score 9/10 and 10/10 at 1 and 5min respectively. Inj.oxytocin 10U IV infusion started.
- Intra operative Haemodynamics stable and urine output

was 100ml.

POST OP:

Postoperatively two segment regression of sensory block (T10) after 1hr, and the SUBARACHNOID BLOCK (SAB) subsided within 4hr with a remaining partial motor block in both feet.

Despite plantar flexion of both feet, the patient was not able to perform dorsal flexion as she had done before the Sub arachnoid block.

This condition persisted for 20 hrs post operatively & slowly resolved, first on Rt side. After 48hrs complete recovery on both sides.

DISCUSSION

- The prevalence of CIDP may be underestimated because of limitations in clinical, serological, and electrophysiological diagnostic criteria.
- The course may be steadily progressive, stepwise progressive, or relapsing.
- Other diagnostic features include the absence of or a reduction in deep tendon reflexes, demyelination of motor nerves consistent with electrophysiological findings (abnormal conduction velocities, conduction block), increased protein concentrations in cerebrospinal fluid (CSF)
- The use of general anesthesia is risky in a patient with CIDP as the effect of muscle relaxant is uncertain. Also, a depolarizing muscle relaxant may induce hyperkalemia and cardiac arrest. Patient may need post op mechanical ventilation.

CONCLUSION

Because of its rarity, there are no specific guidelines for the anesthetic management of patients with CIDP. Considering the risks we preferred Subarachnoid block over GA. Since there is risk of delayed post op motor recovery from subarachnoid block. Patient should be intimated before and same documented in PAC.

REFERENCES

1. Torsten Richter Karl-Anton Langer Thea KochSpinal anesthesia for cesarean section in a patient with chronic inflammatory demyelinating polyradiculoneuropathy
2. Summers BA, Flett GG. Neuraxial analgesia in labour– induction and maintenance. Anaesthesia & Intensive Care Medicine. 2019 Jul 1;20(7):371-5.