Labor analgesia in pregnant woman with HELLP syndrome and Multiple Sclerosis

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Background

The Hemolysis Elevated Liver enzymes Low Platelets (HELLP) syndrome is an advanced stage of preeclampsia, leading to high maternal (24%) and perinatal (up to 40%) mortality.¹ On the other hand, multiple sclerosis (MS) is a chronic autoimmune condition of the central nervous system (CNS), leading to demyelination and neuronal injury. Current guidelines for neuroaxial analgesia in these patients are still ambiguous.²

We intend to report the labor analgesia management of a patient with both conditions.

Clinical case

36 years old, G1P0

ASA III: diagnosed with MS and chronic hypertension

30 weeks gestation

- Severe hypertension
- Frequent hypertensive crisis
- Headache and photophobia

Laboratory results

- Anemia
- Hemolysis (elevated LDH)
- Thrombocytopenia (94.000)

Decision

Patient proposed to **labour induction**. Considering the reasonable level of platelets and the lack of evidence against neuroaxial techniques in MS patients, we decided to propose **epidural analgesia**.

Epidural analgesia

- First bolus: 10 mcg sufentanil + 6 mL ropivacaine 0.2%
- Additional bolus of 10 mL ropivacaine 0.2% were given as needed

Outcome

Good analgesia was achieved and there were **no hemodynamic/neurologic complications**. Both the birth and immediate postpartum period were uneventful.

Discussion

As there are no specific guidelines to the anesthetic approach, it is necessary to perform a thorough evaluation of each case.

Given the length and pain associated with labor induction and to avoid the potential neurotoxic effects of local anesthetics on demyelinated nerves, we decided to proceed with epidural analgesia instead of combined spinal epidural technique (the most common technique in our center).

Learning Points

The ideal anesthetic management for these patients is still unknown.

Neuroaxial analgesia can be successfully used as long as there is a careful preoperative assessment and a close monitoring and care of the patient in the peripartum period.

HELLP syndrome is not a contraindication to neuroaxial technique as long as no coagulopathy is present.

Individualized informed consent is mandatory.

REFERENCES

¹ Del-Rio-Vellosillo, M; Garcia-Medina J. Anesthetic considerations in HELLP syndrome. [Acta Anaesthesiol Scand](#). 2016 Feb;60(2):144-57

² Bornemann-Cimenti, H; et al. Anestesia neuraxial em pacientes com esclerose múltipla-uma revisão sistemática. [Rev Bras Anestesiol](#). 2017;67(4):404-410