

Clinical Management of Delivery in Pregnant Woman with Idiopathic Intracranial Hypertension

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Abstract: Idiopathic intracranial hypertension or also called pseudotumor cerebri is a rare condition in the general population. It is due to increased pressure Cerebrospinal fluid (CSF) is of normal characteristics. A lesion of spatial occupation must be previously ruled out by imaging. Is observed in 19.3 / 100,000 women of reproductive age and is rare during pregnancy.

We report the case of a 35-years-old pregnant woman with idiopathic intracranial hypertension and the integrated management of labor from an obstetric and anesthesiological point of view. A combined spinal epidural analgesia was administered with excellent results.

Keywords: Idiopathic intracranial hypertension, Delivery, Obstetric Analgesia

1. INTRODUCTION

Idiopathic intracranial hypertension or also called pseudotumor cerebri is a rare condition in the general population. Clinically presents headache, and loss of vision objectifying papilledema. It is due to increased pressure Cerebrospinal fluid (CSF) is of normal characteristics. A lesion of spatial occupation must be previously ruled out by imaging. The usual medical treatment is based on analgesics, corticosteroids, carbonic anhydrase inhibitors and diuretics (acetazolamide); if adequate control is not achieved are indicated lumbar punctures for extracting CSF^[1, 2, 3].

Is observed in 19.3/100,000 women of reproductive age and is rare during pregnancy^[4]. Therapeutic abortion is not indicated^[2, 4, 5]. Uncontrolled intracranial hypertension required to end the pregnancy by the quickest route, either through induction or cesarean section. In other cases, the indication is only by obstetrical reasons^[3, 5, 6].

2. CLINICAL CASE

35-year-old pregnant woman with no family history of interest. Two years ago she began with chronic headache of 4 months of evolution. The headache was located right occipital irradiated to frontal region, associated

phosphenes and temporary loss of vision. Cranial MRI discards tumor. Ocular fundus reveals bilateral papilledema.

3. TREATMENT

Acetazolamide 250 mg/12 hours and subarachnoid puncture with extraction of 30 ml of CSF. Good clinical evolution, reversing the ophthalmic symptomatology.

Four months later, she persists asymptomatic and becomes pregnant, suspending medical treatment. At 28th week of pregnancy, fetal death occurs due to placental abruption. The thrombophilia study was normal. In one month, neurological and ophthalmic symptoms appear again with bilateral discrete papilledema. Restart medical treatment with good evolution. After two months she is again pregnant forcing the treatment to stop. It was decided to induce labor at 37 weeks of gestation. The induction of labor is performed with intravaginal misoprostol every 12 hours, requiring 3 doses.

The stimulation of uterine dynamics is performed with intravenous oxytocin at 0.12 IU hour, requiring a total of 0.9 IU.

Labor analgesia (a combined spinal-epidural) is performed with three centimeters of dilatation. The puncture is made at level L3-L4 with needle tip pen number 25.

Cerebrospinal fluid is clear and tensionless when extracted. Let 3 cc out. Then 1.5 cc of 0.25% hyperbaric bupivacaine and 0.02 mg fentanyl are injected. It is left in a seated position after the puncture 5 minutes.

The placement of the epidural catheter is then attempted, but it is technically impossible, so that the anesthesiologist after multiple attempts leaves the placement of the same.

Labor lasts for 4 hours with good analgesia control during the active phase and the expulsive phase. Assisted vaginal delivery is performed with vacuum extractor to avoid Valsava maneuvers. Female newborn, apgar 9/10; weight: 3170 grams.

Placental expulsion occurred spontaneously within 5 minutes without incident. The patient does not present neurological or ophthalmic symptoms during delivery and postpartum. It is discharged at 3 days with a normal evolution without headache duralpostpunction.

4. DISCUSSION

Our patient had a good clinical evolution during pregnancy, remained without headaches or papilledema. Serial explorations of the ocular-fundus were necessary to objectify the ophthalmic repercussion^[1]

If it had been affected, lumbar punctures could have been performed, even repeated^[1, 3, 7].

As for medical treatment, in pregnant, the use of acetazolamide is not recommended because it is an FDA category C drug. Its use is contraindicated in the first quarter^[5, 6, 7].

End of pregnancy at 37 weeks due to labor induction was indicated because of the risk of detachment that is up to ten times greater in later pregnancies^[8].

During labor there is a risk of increased intracranial pressure (ICP) abruptly due to push by valsalva maneuvers and pain. This can be controlled with an instrumental delivery and adequate analgesia during labor^[4, 6].

Of the techniques of analgesia that we have at present, the intravenous narcotics are not recommended because they generate hypercapnia and increase of the cerebral vasodilation with the consequent increase of the ICP^[4]. In spite of being a disease that causes intracranial hypertension, neuraxial techniques

are not contraindicated, since it increases the isolated CSF pressure and not an occupant space injury or generalized pressure of cerebral parenchyma.

Spinal fluid extraction does not present an increased risk of transforaminal herniation^[3], in fact, the treatment consists of punctures to drain CSF. In the literature we see good management with spinal epidural combined technique^[9], so was the choice, although it is more complex from the technical point of view.

In our patient could not put the catheter into the epidural space, so that analgesia was achieved with spinal administration of local anesthetics and opioids. Because the labor of this patient only lasted 4 hours, a good pain control was achieved during labor and delivery, allowed the obstetrician implement labor, facilitating the expulsion, minimizing increases in ICP and maternal satisfaction.

In short, the management of pregnancy and labor in patients with Idiopathic Intracranial Hypertension aims to minimize the uncontrolled increase in ICP with mainly consequences visually^[3]. This is accomplished with a multidisciplinary approach involving the obstetrician, neurologist, anesthesiologist and ophthalmologist^[6].

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