

Case Report

Emergency Caesarean Section and Idiopathic Intracranial Hypertension: Case Report

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Abstract

We report a case of a 29-year-old pregnant patient: gravida3, para 3, abortus 0, 38 weeks . Her medical history included an idiopathic intracranial hypertension since 2014 with visual repercussions, without obstetric consequences treated with Acetazolamide 250 mg 1 tablet per day. Caesarean section was indicated for fetal distress. The context was urgent (fetal distress), and the anesthesiologist faced a dilemma of the choice of the anesthetic technique: spinal anesthesia or general anesthesia. Finally, a spinal anesthesia was performed by an expert without incidents. A healthy baby was delivered (Apgar score was 9/10). Idiopathic intracranial hypertension IIH is linked to a lack of absorption of cerebro-spinal fluid (CSF) in arachnoid granulations. Outside pregnancy the risk factors of IIH which have been evoked are polycystic ovary syndromes and blood coagulation anomalies as thrombophilia or. Even though the visual prognosis is compromised, there is no risk of engagement that would be life-threatening.

Keywords: Intracranial hypertension; Idiopathic; Pregnancy

1. Case Report

We report a case of a 29-year-old pregnant patient: Gravida 3, para 3, abortus 0 at 38 weeks of amenorrhea. Her Medical history included an idiopathic intracranial hypertension since 2014 with visual signs, without obstetrical consequences treated with Acetazolamide 250 mg 1 tablet per day. Caesarian section was indicated for fetal distress. The dilemma we faced was the choice of the anesthetic technique. Spinal anesthesia or general anesthesia in the context of emergency (fetal distress). We contacted the neurosurgeon that confirmed that the patient was clinically stable for three years under medical treatment (Acetazolamide). Therefore we opted for The spinal anesthesia. It was performed by an expert avoiding multiple lumbar puncture. The outcome of the procedure was positive.

1.1 The outcome

A spinal anesthesia was performed without incidents. A healthy baby was delivered (Apgar score was 9/10). The patient received an anticoagulant (Enoxaparine) injection of 0.4 ml per day due to the high thrombotic risk .

2. Discussion

The definition of the idiopathic intracranial hypertension is an increased of cerebro-spinal fluid pressure without arguments in favor of intracranial pathology and / or absence of signs of ocular injury severity (blindness) in a context of the absence of clinical, biological and radiological criteria [1]. Idiopathic HTIC is rare, its incidence is estimated at 1/100 000. Risk factors include obesity, polycystic ovary syndrome, thrombophilia and hyperfibrinolysis. A study by Bagga R, et al. confirmed that Spinal anesthesia has minimal effect on Cerebral spinal fluid pressure [2].

In the case of idiopathic intracranial hypertension, the uniform brain is swelling and the natural position of cerebellar tonsils will prevent herniation during a lumbar puncture. In these patients, lumbar puncture may be beneficial because it allows CSF drainage and reduces its pressure. The diagnosis of idiopathic HTIC related to pregnancy [3] include: Signs of cranial hypertension (headache, nausea, vomiting, papillary edema, visual eclipse). Normal neurological examination. Increase in CSF pressure to more than 20 cm H₂O (more than 25cmHg in obese subjects). Normal composition of the CSF. Neuroimaging showing symmetrical small ventricles and excluding mass syndromes or any other cause of elevated intracranial pressure (ICP).

In our case, the dilemma we faced was the right choice of the anesthetic technique: spinal anesthesia or general anesthesia. In addition, the decision had to be rapid especially in an emergency context (fetal distress). We contacted the neurosurgeon that confirmed that the patient was clinically stable for three years under medical treatment (Acetazolamide). When weighing pros and cons of each technique, we found that spinal has a lot of pros: patient remains awake, it is useful for monitoring signs of intracranial hypertension, it allows cerebral spinal fluid drainage and reduces its pressure. However its cons include the transitory hypotension. Whereas, general anesthesia has many cons, especially in pregnancy such as the great risk of aspiration of stomach contents into lungs. It also increases cerebral spinal fluid pressure. But it can be useful in some cases, because it is faster for an emergency, especially with a difficult of delicate spinal. Thus, we opted for the spinal anesthesia. It was performed by an expert, and the outcome of the procedure was positive.

In retrospect, we couldn't find any previous study discussing this case in the emergency context. Treatment of idiopathic intracranial hypertension is The hygienic and dietary measures (avoid excessive weight) Iterative lumbar punctures. The introduction of corticosteroid therapy not crossing the placental barrier, based on prednisone, at a dose of 40-60 mg/day [4]. Acetazolamide reduces the production of CSF by choroid plexuses. In case of intolerance is replaced by a loop diuretic (furosemide) at the maximum dose of 40 mg three times a day. The vaginal delivery is not contra indicated (apart from pushing HTIC).

3. Conclusion

The role of the anesthetist is essential in placing a catheter of epidural for a vaginal delivery or for the achievement of a safe spinal anesthesia, as well as prescribing the anticoagulants in postpartum since the thrombotic risk is usually high. In case of a stable idiopathic intracranial hypertension, one should opt for spinal anesthesia technique.

Conflicts of Interest

The authors do not declare any conflict of interest.

Contribution of the Authors

All authors have read and approved the final version of the manuscript.

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