Maternal and neonatal outcomes associated with the use of spinal anesthesia compared with general anesthesia in eclampsia: a retrospective study.

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BACKGROUND AND GOAL OF STUDY:

The clinical spectrum of a patient with eclampsia varies considerably. It's difficult to apply general recommendations for anesthesia care for these patients. General anesthesia is often mandatory and the use of regional anesthesia was reported in case of stable eclampsia.

We studied anesthesia techniques and related morbidity and mortality amongst eclamptic patients in a Tunisian third level hospital.

MATERIALS AND METHODS:

We conducted a retrospective survey on hospital anesthesia records of patients with eclampsia who underwent caesarean delivery at a third level hospital over a 13-year span from January 2004 to December 2016.

RESULTS:

Eighty three eclamptic patients were recorded during our study period. The incidence of eclampsia was 64 per 100000 deliveries.

General anesthesia was performed in 61 patients (73.5%). In this group, the major events were: difficult intubation in 3 patients, aspiration in 2 patients and intra operative haemorrhage in 2 patients.

The hemodynamic effects associated with laryngoscopy and endotracheal intubation revealed a change in the heart rate from 104 ± 10 to 133 ± 17 beats/min and an increase in mean arterial pressure from 94 ± 1.1 to 112 ± 3.2 mm Hg.

Median APGAR score at 1 and 5 min were 7 and 8 respectively.

Spinal anesthesia was performed in 22 patients (26.5%), after stabilization.

Computed tomography was performed in 7 patients and was normal in all cases.

Only two patients had episodes of hypotension.

No patient had a peri operative convulsion. Median APGAR score at 1 and 5 minutes were 8 and 9 respectively.

There were no maternal deaths in the two groups.

We reported 5 stillbirths and 2 neonatal deaths, all with general anesthesia.

CONCLUSION:

The risk-benefit profiles of spinal anesthesia and general anesthesia strongly favor the use of spinal anesthesia when feasible.

Important factors to consider are the risks of clinically significant maternal hemodynamic derangements, difficult airway management, stroke, spinal/epidural hematoma, and adverse neonatal outcomes.

In eclamptic patients, spinal anesthesia-induced hypotension is typically easily treated.

The risk of spinal/epidural hematoma is low, and there is no evidence that neonatal outcomes are compromised.

In contrast, potential complications of general anesthesia, such as hypertensive crisis, stroke, and difficult airway management, are the leading causes of morbidity and mortality in this population.