LOW DOSE OF SPINAL OPIOIDS VS LOCAL PERIDURAL ANESTHESIA FOR POSTOPERATIVE PAIN MANAGEMENT IN CESAREA; CONTROLLED CLINICAL TRIAL

Martínez Reyes MF¹, Ramírez Mápula V¹, Sandoval Rivera AG, Peraza Garay FJ², Villars Zamora EG², Valencia Echávarri A²

1. Resident, Department of anesthesiology, Hospital civil de Culiacán, Culiacán, Sinaloa, México.

2. Doctor attached, Department of anesthesiology, Hospital civil de Culiacán, Culiacán, Sinaloa, México.

BACKGROUND AND AIMS

Cesarea section is the most common, so the management of the obstetric patient in anesthesiology is usual. Opioids have been an option in regional anesthesia to improve the antinociceptive effect of local anesthetics. The cesarea section is the most common in the world and in our country more than 2 million births are attended annually, of which 20 to 40% are resolved surgically, which indicates that in the area of anesthesiology the management Obstetric patient is most common. Neuroaxial techniques are the choices in these cases, so this study is based on the use of the epidural route for anesthesia and postoperative analgesia

The objective is to compare the efficacy and safety of the spinal administration of fentanyl 25 micrograms and morphine 50 micrograms vs the administration of ropivacaine to 1.2% peridural for pain control in post-operative cesarean patients.

METHODS

A randomized, controlled clinical trial was conducted in patients undergoing caesarean section from January-December 2017; in the HCC.

RESULTS

A sample of 68 patients was obtained, distributed in Control Group (34) and Experimental (34). With the scale used to assess pain (VAS) in its different measurements over time, a mean was obtained. At 8 hours, Spinal Opioid Group of 1.5 with an SD of ± 1.5 ; while the Continuous Epidural Analgesia Group had an average of 2.5 with an SD of ± 2.3 ($p = .026$). At 16 Opioid Groups of 1.5 with an SD of ± 0.9 while the Continuous Epidural Analgesia Group had a mean of 2.7 with an SD of ± 2.3 ($p = .001$).

Table 1. Comparison of means in the EVA of time in both groups.

Variable of time	Spinal opioids	Epidural Analgesia	Mean difference	P
EVA PO	0.3 $\pm$.6	1.0 $\pm$ 1.3	-.7	.007
EVA 8 hours	1.5 $\pm$ 1.5	2.5 $\pm$ 2.3	-1.1	.026
EVA 16 hours	1.5 $\pm$ 0.9	2.7 $\pm$ 1.7	-1.2	.001
EVA 24 hours	1.2 $\pm$ 1.1	2.3 $\pm$ 1.5	-1.0	.002

Table 2. Comparison of percentage of patients with nausea in both groups.

Variable of time	Spinal opioids	Epidural Analgesia	P
Náusea PO	2(6.1%)	2(6.1%)	.693
Náusea 8 hours	3 (9.1%)	0 (0%)	.238
Náusea 16 hours	0 (0%)	0(0%)	1.0
Náusea 24 hours	0 (0%)	0(0%)	1.0

PO: Postoperative

Table 3. Comparison of percentage of patients with vomit in both groups.

Variable of time	Spinal opioids	Epidural Analgesia	P
Vómito PO	0 (0%)	2(6.1%)	.693
Vómito 8 hours	3 (9.1%)	0 (0%)	.238
Vómito 16 hours	0 (0%)	0(0%)	1.0
Vómito 24 hours	0 (0%)	0(0%)	1.0

PO: Posoperative

Table 4. Comparison of percentage of other side effects in both groups.

Variable of time	Spinal opioids	Epidural analgesia	P
Pruritus	6 (18.2%)	2(6.1%)	.024
Respiratory depression	0 (0%)	0 (0%)	1.0

CONCLUSIONS

The practical application of the results of this study could be the use of a combination of lipophilic and hydrophilic spinal opioids with a local anesthetic in cesarean anesthesia to increase the comfort level of the patient.

Reference:

1. Templos-Esteban LA, Delgado-Carlo MM. Comparacion entre buprenorfina y morfina peridural para manejo de dolor postoperatorio en paciente sometida a cesarea. RevMexAnestesiol. 2008;31(3):172–8.
2. Wojciech Weigl, Andrzej Bieryło y Michał J. Dąbrowski. Perioperative analgesia after intrathecal fentanyl and morphine or morphine alone for cesarean section. BMC Anesthesiology 2017; 96 (48).
3. Pervez Sultan, Stephen H. Halpern, Ellile Pushpanathan y Brendan Carvalho. The Effect of Intrathecal Morphine Dose on Outcomes After Elective Cesarean Delivery: A Meta-Analysis. Society for Obstetric Anesthesia and Perinatology 2016; 123 (1).