

## 405. Post cesarean section analgesia

**S. Carvalho, J. Osório, S. Carreira, L. Saldanha**  
 Departamento De Anestesiologia, Centro Hospitalar De Lisboa Ocidental, Lisboa, Portugal

**Background and Goals:** The cesarean section (CS) rate increased significantly over the past years, accounting for 15 to 25% of births. In the post-CS period, moderate to severe postoperative pain is a commonly reported problem. Good post-CS analgesia improves maternal functional ability and interaction with newborn. There are several analgesic options to optimize pain management, each of them with different efficacy and safety.

**Material and Methods:** A questionnaire has been made to evaluate post-CS analgesia on 185 women, between September and December 2006. This included the anesthetic technique, the analgesic drugs and doses, route of administration, complications, postoperative pain, need for supplemental analgesia and level of global satisfaction. The post-CS pain on the first 24 hours was evaluated by objective pain scale (OPS) 0-10, during maternal rest and mobilization. Data was statistically analyzed, with Chi-square test and considering  $p < 0,05$  statistically significant.

**Results:** On the first 24 hours, epidural analgesia was used on 151 women (81,6%), intravenous analgesia on 34 (18,4%) and local anesthetic infiltration on 7 cases (3,8%). The evaluation of postoperative analgesia showed an OPS  $\leq 4$  at rest in 169 cases (91,5%) and  $>4$  in 16 cases (8,5%); OPS during mobilization was  $\leq 4$  in 127 cases (68,6%) and  $>4$  in 58 cases (31,4%). There was a statistically significant superiority of the epidural analgesia at rest ( $p=0,03$ ). During mobilization, it was observed a similar trend, although not statistically significant.

**Conclusions:** The various analgesic options used in the management of post-CS pain demonstrated efficacy and safety in the majority of the cases. The epidural analgesia had more analgesic benefit than intravenous analgesia. In the first 24 hours, the post-CS analgesia during rest was satisfactory; however, the results were suboptimal during maternal mobilization and activity, which may delay recovery and interaction with the newborn.

## 63. Comparison of three different epidural analgesic protocols for pain relief after cesarean section

**C. Cavaleiro, R. Delgado, B. Carvalho, A. Valentim, E. Martires, M. Martins, S. Abrantes, J.M. Nunes**  
 Anesthesiology Department, Coimbra University Hospitals, Coimbra, Portugal

**Background and Aims:** Epidural analgesia after cesarean section (CS) can provide excellent postoperative pain relief, but complications may occur. This study was performed to compare the efficacy and side effects of three different epidural analgesic protocols for postoperative CS analgesia.

**Methods:** 81 pregnant women ( $31.4 \pm 5.0$  years) scheduled for CS under epidural anesthesia (ropivacaine and sufentanyl) were retrospectively analysed, focusing on postoperative analgesia efficacy and side effects during the first 24h. The first record of pain scores (pain numeric scale; 0-10), sedation (Ramsay scale) and motor blockade (Bromage scale) was obtained 2h after the anesthetic procedure for CS. To measure the suitability of postoperative analgesia we calculated the median scores of pain, sedation and motor blockade between the 2nd and 4th hour. After the 4th hour we used the median scores during 4h periods.

The first analgesic bolus dose was administered 3h after anesthetic procedure for CS. 29 (groupA) and 21 (groupB) patients received 2.5mg and 3mg epidural morphine for postoperative analgesia twice daily. A ropivacaine-sufentanyl mixture, groupC, was administered every 4h to 31 patients. Postoperative nausea or vomiting (PONV), pruritus, hypotension and urinary retention were recorded. Kruskal-Wallis, Friedman and Chi-square tests were used for statistical analyses.

**Results:** We were unable to demonstrate any difference in pain relief between the three groups. The motor blockade incidence was significantly higher in groupC during the 2nd and 4th hour. Whilst there wasn't any significant statistical association between all protocols and sedation, 9.5% of groupB patients presented Ramsay score 3. The incidence of side effects (PONV and urinary retention) was similar between all groups. Pruritus incidence was significantly higher in groupB. Hypotension didn't occur.

**Conclusions:** We conclude that 2.5mg epidural morphine for postoperative analgesia provides the optimum balance between pain relief and side effects compared with 3mg morphine or ropivacaine and sufentanyl after CS.