

COMPARISON OF EPIDURAL AND GENERAL ANESTHESIA FOR ELECTIVE CESAREAN DELIVERY ACCORDING TO THE EFFECTS ON APGAR SCORE AND ACID-BASE STATUS OF THE NEWBORN

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Cesarean section rates have been steadily increasing in recent years and regional anesthesia has become the preferred technique. The objective of this study was to determine the effects of lumbar epidural anesthesia on the Apgar score and acid-base status of the newborn. Umbilical artery blood gases were obtained in 85 singleton, term, uncomplicated pregnancies delivered by elective cesarean section. The umbilical artery blood pH, PaCO₂, PaO₂ and HCO₃ values and Apgar scores (1 and 5 minutes) were compared between lumbar epidural and general anesthesia groups. General anesthesia was used in 45 (52.9%) women and lumbar epidural anesthesia in 40 (47.1%). Only two of the newborns exposed to epidural anesthesia had umbilical artery blood pH values 7.19 or less. The mean umbilical artery blood pH was found to be significantly lower in the newborns exposed to lumbar epidural anesthesia (P=0.011). No newborns in the both groups were severely depressed (Apgar scores less than five). The mean umbilical artery blood PaCO₂, PaO₂ and HCO₃ values did not show any significant difference between the groups. In conclusion, lumbar epidural anesthesia is associated with lower umbilical artery blood pH values, occasionally with severe fetal acidemia.