The effect of spinal versus general anesthesia on apgar score of neonates after caesarian delivery

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ABSTRACT
Background & Aim: Various factors effect on Apgar score. The aim of this study was to find effects of spinal and/or general anesthesia on Apgar score of neonates being born after caesarian section.

Materials and Methods: After designing the study and green light from “Sarem Research Center”, 259 ASA I and ASA II women who were going to have caesarian section in operating room or labor room of the hospital were selected through consecutive sampling. Sample gathering went from June 2013 through February 2013 (9 months). Women were subjected to the same spinal and or general anesthesia method performed by a single operator after obtaining written consent. All women were monitored according to standard monitoring guidelines throughout anesthesia and surgery. The Apgar score for each baby was evaluated by the pediatrician and recorded for the first and fifth minutes after birth. All obtained information was entered into study form and then analyzed by IBM SPSS statistical software.

Results: Neonates’ first minute Apgar score in spinal group (8.51±0.95) was significantly different from first minute Apgar score in general group (7.56±1.832) (p<0.05). There was also a significant difference between fifth minute Apgar score of neonates in spinal group (9.7±0.596) versus general group (9.15±1.343)(p<0.05). There was no significant difference between two groups in order of days of hospitalization in the NICU; (0.84±1.813) in spinal group versus (1.45±3.059) in general group (F=3.463 Sig=0.064). There was a significant difference in pre and post anesthesia systolic and diastolic blood pressure between groups.

Conclusion: Small but significant differences in first and fifth minutes Apgar scores of neonates born through caesarian delivery by spinal or general anesthesia methods has no statistically significant effect on days of hospitalization of neonates in the NICU and/or neonates’ survival.

keywords: Spinal Anesthesia; General Anesthesia; Apgar score; NICU

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