

Effect of Amino acid Infusion on prevention of Hypothermia in Pediatrics Undergoing Major surgeries

Thesis

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Abstract

Our study was performed on 60 children patients of ASA physical status I-III ranging from one to six years of age of both genders and scheduled for an elective major surgery in Specialized Children Hospital of Cairo University and El Fayoum University. In (AA group): 30 children received amino acid infusion intraoperatively. The (HM group): 30 children lied on a heating circulating water mattress set to 37⁰ C and received warmed Lactated Ringer's solution. All children received general anesthesia. Before induction operating room temperature was kept at 24 degrees and the axillary temperature was recorded. After endotracheal intubation the temperature probe was inserted in the lower esophagus. Intra operative temperature (core) was recorded every 15 min. After extubation the axillary temperature was recorded. In the recovery room the axillary temperature was recorded every half an hour for 2 hours. We also assessed post operative shivering. Our main finding is that, the mean decrease in intraoperative temperature was significantly higher in the HM group being 1.06 ± 0.25^0 C compared to 0.8 ± 0.24^0 C in the AA group. The awakening temperature was significantly higher in HM group being 36.48 ± 0.13^0 C compared to 36.33 ± 0.26^0 C in the AA group. The mean increase in the post operative temperature was significantly higher in the AA group being of 0.25 ± 0.09^0 C compared to 0.15 ± 0.09^0 C in the HM group. There was no post operative shivering in both groups.

We concluded that AA is superior on HM in preservation of temperature both intra and postoperative.

Key Words: thermoregulation, amino acids, pediatrics, intraoperative hypothermia, heating mattress and shivering.