

Dexmedetomidine as a part of general anesthesia for caesarean delivery in patients with pre-eclampsia: Efficacy and fetal outcome

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Statement of the Problem: Dexmedetomidine a novel selective α_2 anesthetic agent currently used in hepatic patients may provide more hemodynamic stability. It decreases oxygen consumption(VO_2), carbon dioxide production(VCO_2) and energy expenditure(EE). As the increase in whole body oxygen consumption occurs after reperfusion may reflect oxygen uptake by the graft. We suggest that we may benefit from suppressing effect of DEX on whole metabolism which may be reflected in graft metabolism specially in critical phases (anhepatic, reperfusion).

Purpose: The purpose is to study the Effect of continuous infusion of Dexamedetomedine on preoperative indirect gas calorimetry monitoring on recipients of liver transplantation.

Methodology & Theoretical Orientation: After ethical committee approval, Pan African Clinical Trial Registry (PACTR 201402000776978) and consent approval 40 patients were categorized to: Dex (n=20) beginning at 0.5 micg/kg/h (0.2-0.7 μ g/ kg/h) and placebo C(n=20) after induction till extubation. Anesthesia was guided by entropy (40-60) with desflurane. Indirect calorimetry parameters (VO_2 , VCO_2 , EE, RQ), arterial blood gasses, hemodynamics were taken at base line, dissection, anhepatic, reperfusion and 3 hours after end of operation. Trans esophageal Doppler (TED) was used for fluid optimization.

Findings: Dexmedetomidine decreases indirect calorimetry readings in general in comparison to control group specially at reperfusion and extending for hours after that, avoiding bolus and infusion at 0.5 may not affect hemodynamic stability, non-significant difference between groups regarding fluids, inotropic support and I.C.U stay.

Conclusion & Significance: Dexmedetomidine has a depressing effect on indirect calorimetry with no major adverse effects on hemodynamics. This may be used as a tool for protection from reperfusion injury.

Biography

Nahla K Gaballa Assistant Lecturer of Anesthesia has her expertise by working in National Liver Institute Hospital for 10 years, attending 200 cases of living donor transplant, interested in pain in cirrhotic patients, has the desire to add a smile and quality of life of chronic patients; to observe the drug effect on metabolic monitor in stages of transplant as a tool for protection of reperfusion injury.