# Perioperative Effect of Continuous Infusion of Dexmedetomedine On Indirect Gas Calorimetry Monitoring In Liver Transplantation.

N*irmen* A. *Fayed* [2], *Nahla K. Gaballa* [2]*. Magdy K. Khalil* [2], *Mohamed H. Afifi*[1]*,Essam A. Ismael*[1],
[1]Faculty of Medicine, Menoufia University, [2]National Liver Institute

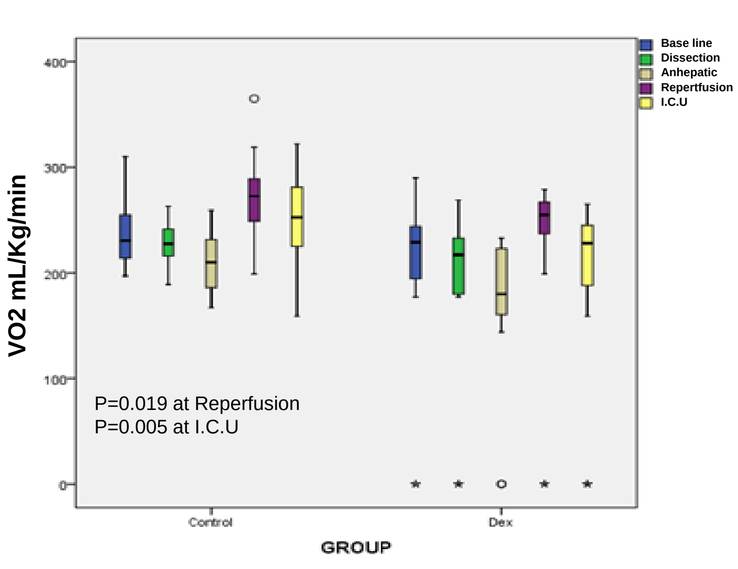
## Background and aim of the work

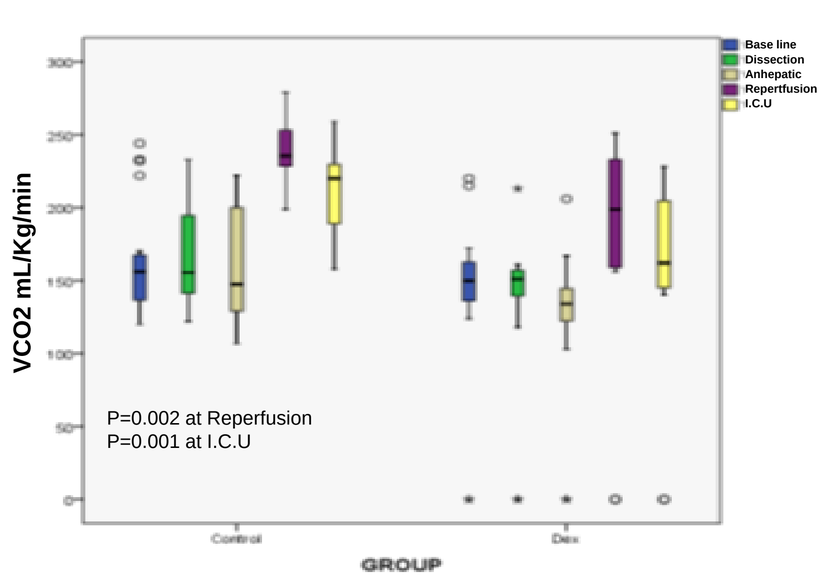
Dexmedetomidine; a novel sedative profoundly selective α2 anesthetic agent may provide more hemodynamic stability.(1) Currently used in hepatic patients (2),we aim to study the perioperative effect of Dexmedetomidine on indirect calorimetry in recipients of adult living donor liver transplantation

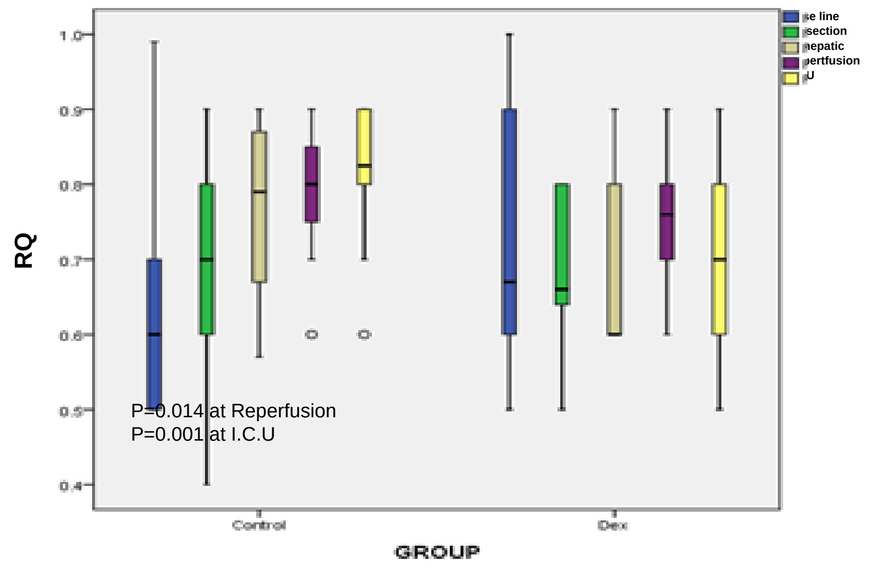
## Patients and Methods

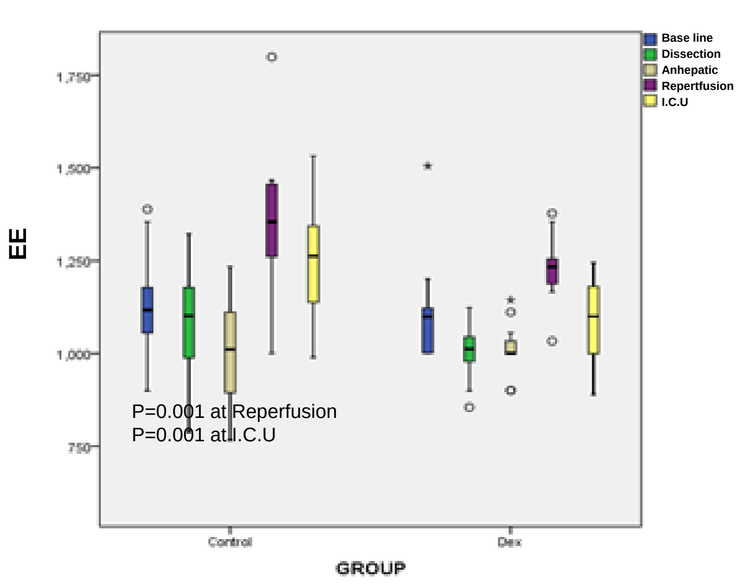
After ethical committee approval , Pan African Clinical Trial Registry (PACTR 201402000776978), and consent approval. 40 patients were categorized to: Dex(n=20) beginning at 0.5 µg/kg/h (0.2-0.7µg/kg/h) and placebo C(n=20) after induction till extubation.Anesthesia was guided by Enotropy (40-60) with Desflurane (Des)% and fentanyl altered accordingly. Transoesophageal Doppler (TED) was used for fluid optimization, invasive mean arterial blood pressure (MABP, mmHg) and heart rate (HR, beat/min) were monitored. Indirect calorimetry parameters(VO2,VCO2,EE,RQ),arterial blood gasses ,hemodynamics were taken at base line, dissection ,anhepatic, reperfusion and 3 hours after end of operation.

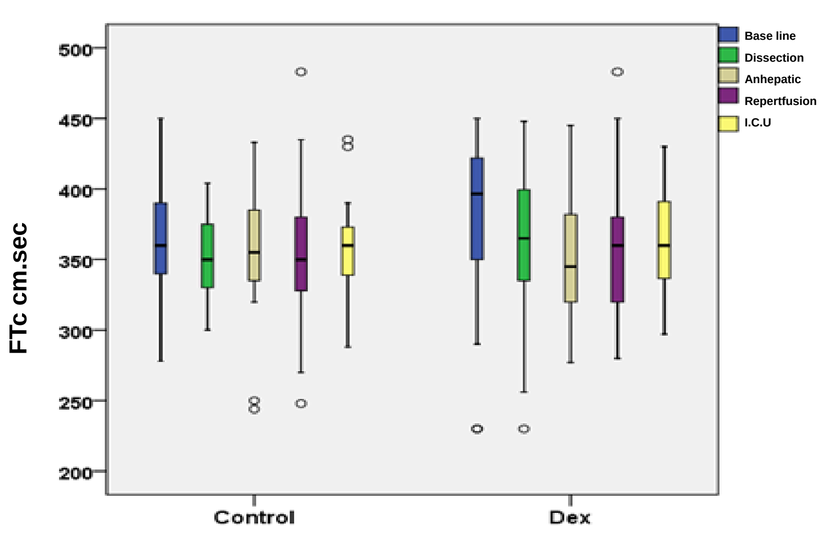
## Results

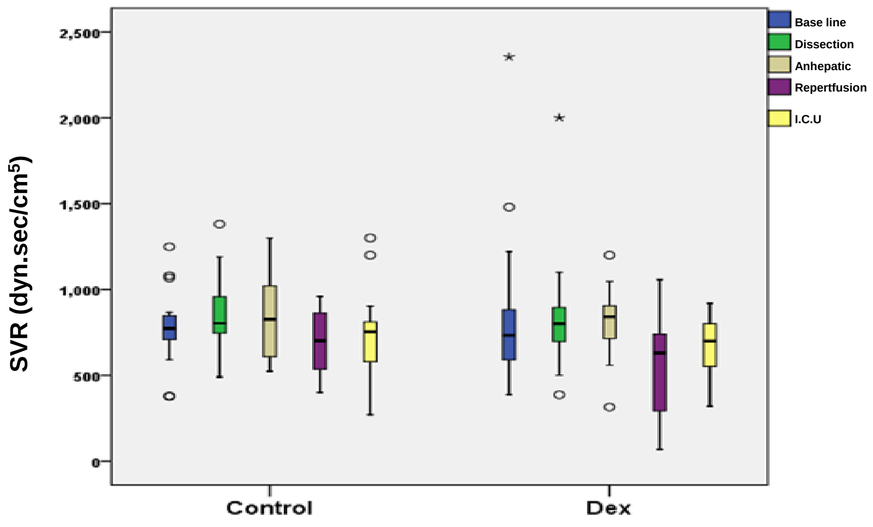


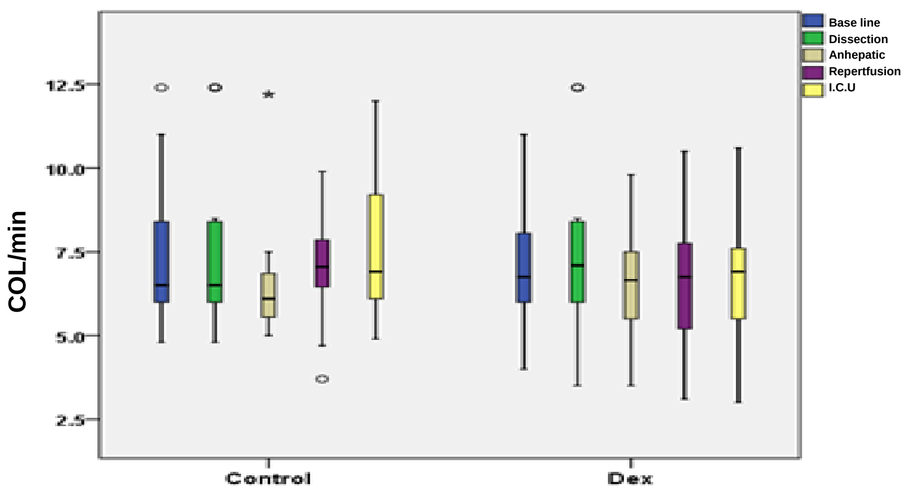




**ICU stay was comparable DEX/C (6.95±2.53/6.70±1.36), P= 0.683**

## Conclusion

Dexmedetomidine has a depressing effect on indirect calorimetry with no major adverse effects on hemodynamics

## References

1-Taittonen MT, K.O., Aantaa R, Kanto JH. , *Effect of clonidine and dexmedetomidine premedication on perioperative oxygen consumption and haemodynamic state.* Br J Anaesth 1997. **78**: p. 400-406.

2-Sara A. Kasem, A.M., Azza M. Ezzat, Wafaa M. EL-Sadek, Ahmed Lotfy, Ahmed Hassanin., *The Role of Dexmedetomidine in Decreasing Acute Kidney Injury in Children with Acyanotic Heart Disease Undergoing Total Correction by A New Urinary Biomarker Kidney Injury Molecule-1.* Med. J. Cairo Univ, *2016. 84: p. 1-6.*