

**EFFECT OF PERIOPERATIVE OXYGENATION
AND PRELOADING WITH HARTMAN'S
SOLUTION ON FETAL OUTCOME IN
ELECTIVE C.S. AT HIGH ALTITUDE**

*M.H. Mostafa * and Randa Ali Shoukry ***

*** Lecturer of Obstetrics and Gynaecology, Ain Shams University**

**** Lecturer of Anaesthesiology and ICU. Ain Shams University**

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ABSTRACT

Objective : To study the effect of perioperative oxygenation (100% oxygen versus 50% oxygen) and preloading with 500 ml of Hartman's solution on the fetal, neonatal and maternal outcome at high altitude.

Study design : Randomized controlled study.

Settings : In the Ob. & Gyn. department of one of private hospitals in Abha in KSA (7000 feet's above sea level).

Patients : Pregnant women matched for age and gestational age admitted for elective C.S. (ASA physical status I and II) during the period between march 2002 and December 2003.

Intervention : Patients were randomized into 4 groups: first one received 500 ml Hartman's solution as preload before induction of general anaesthesia plus 100% oxygen during the procedure, second one received 100% oxygen during the procedure without preloading Hartman's solution, third one received 500 ml Hartman's solution as preloading plus N₂O 50% in oxygen during the procedure and the last group received N₂O 50% in oxygen without preloading Hartman's solution.

Main outcome measures : Clinical outcome measures related to maternal hemodynamics (ABP, HR) peripheral oxygen saturation as well as fetal Apgar score at 1 and 5 minutes, and blood gas analysis of the umbilical artery and vein.

Preoperative evaluation and preparation was done for each patient. No pre-medication was given to any of the patients. Aspiration prophylaxis in