COMPLICATIONS OF EXTERIORIZED VS. *IN SITU* UTERINE REPAIR AT C-SECTION

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INTRODUCTION: Exteriorization of the uterus for repair during cesarean section (CS) is a common practice.¹ Complications associated with this technique include nausea/vomiting, pain, hypotension, bradycardia and air embolism.^{1, 2, 3} The purpose of this randomized, single blinded study was to compare intra-operative complications of exteriorized versus *in situ* uterine repair during elective CS under spinal anesthesia.

METHODS: With REB approval and informed consent, 80 patients were randomized to exteriorized or *in situ* uterine repair. After acute preload, spinal anesthesia was performed using 10-12 mg of 0.75% hyperbaric bupivacaine, 100 µg of morphine and 10 µg of fentanyl. Following delivery, all patients received 0.5 IU of oxytocin iv, followed by infusion of 20 IU/1L LR (120 ml/h). Obstetricians performed assisted delivery of placenta. Phenylephrine was used to maintain SBP within 10% of the baseline. Primary outcome was nausea post-delivery. Secondary outcomes included vomiting, pain, hemodynamic changes, surgical time and estimated blood loss.

RESULTS: Demographic data and sensory levels of anesthesia were similar in both groups. Nausea post-delivery was significantly reduced in the *in situ* group (17% vs. 38% $p < 0.05$). There was a trend toward less post-delivery pain (12.5% vs. 25%), vomiting (5% vs. 18%), hypotension (15% vs. 28%) and tachycardia (2.5% vs. 18%) in the *in situ* group. In the exteriorized group, hypotension and tachycardia tended to occur shortly after returning the uterus to the abdomen. The duration of uterine repair (11±0.03 vs. 12±0.04 min), duration of surgery (36±0.08 vs. 40±0.12 min) and estimated blood loss (624±48 9ml vs. 652±415 ml) were not different between groups exteriorized and *in situ*.

DISCUSSION: Exteriorization of the uterus was associated with increased patient discomfort. This study did not support the claim that exteriorization of the uterus results in shorter surgical time and decreased blood loss.³ We hypothesize that, in addition to visceral pain, hemodynamic changes associated with exteriorization and repositioning of the uterus add to patient discomfort. We recommend that uterine repair should be done *in situ* where possible.

REFERENCES: 1. Obstet Gynaecol Surv. 51: 445-451 2. Br J Obstet Gyn. 105:1070-1078 3. Br J Obstet Gyn. 106:913-916