

Double-layered purse string uterine suture employing the French ambulatory cesarean section technique compared with single-layer continuous uterine suture: An ultrasound evaluation randomized trial.

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February 22, 2021

Abstract

Objective: To test the hypothesis that compared to single layer continuous uterine suture (SLCUS), a double layered purse string uterine suture (PSUS) significantly reduces cesarean scar defect (CSD) rates, without increasing the perioperative maternal morbidity. Design : Interventional prospective, randomized study . Setting: University obstetric units in Tunisia. Population: 100 pregnant women with an indication of a planned Caesarean. Methods: Patients were enrolled in 2 groups according to the uterine suture technique: SLCUS or PSUS. A Saline infusion hysterosonography was performed by the same senior obstetrician blinded to the uterine suture technique 6 months after surgery . Main Outcome measures: Operative time and Calculated blood loss (CBL) were used for the short time analysis . Uterine and CSD measurements were used for the mid time analysis . Results : Despite a few minutes longer operative time in SUS group (7.17 ± 2.31 min Vs. 6.31 ± 3.04 min, $p = 0.028$ in SLCUS group; $p < 10^{-3}$); there was no significant difference in terms of CBL (520 ± 58 in SUS group vs. 536 ± 50 ml in SLCUS group, $p = 0.724$). The medium-term analysis showed a significant decrease in the rate of CSD with the PSUS: 6.66% vs.40% with SLCUS; $p = 0.002$. Moreover, SLCUS was the leading risk factor for CSD : adjusted OR=6 ;95% CI [0- 1], $p < 10^{-3}$. Conclusion : Compared to single layer continuous suture, purse string uterine suture significantly reduces cesarean scar defect rates, without increasing the perioperative maternal morbidity. NCT03930134. <https://clinicaltrials.gov/ct2/show/NCT03930134>

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