

ABSTRACT

Introduction: This prospective randomised study compared healing of the scars after cesarean section during the first postpartum year using a single or double layer suturing technique.

Material and methods: Women with uncomplicated singleton pregnancies indicated for elective or acute cesarean section were randomly allocated to the uterine closure technique group. During the first postpartum year, their lower uterine segment was examined with a transvaginal ultrasound in 3 consecutive visits at 6 weeks, 6 months, and 12 months.

Results: 324 women had the 12 months visit, out of these 149 underwent single layer closure of the uterine incision, 175 underwent double-layer technique. A higher proportion of the defects is seen in the single layer closure technique of suturing. Defects in the single layer group were wider (0.002) and the residual myometrial thickness in the single layer group were thinner (0.019). Women who underwent cesarean section at the stage of full cervical dilation had scars that were closer to the external cervical os (0.000).

Conclusions: The findings of this study demonstrate that double layer technique with the first continuous nonlocking suture followed by a second continuous nonlocking suture is associated with better suture healing and greater residual myometrial thickness.