

Clinical paper

Medtronic provides the following synopsis of a clinical publication involving V-Loc™ sutures.

TITLE Fishbone double-layer barbed suture in cesarean section: a help in preventing long-term obstetric sequelae?

AUTHORS Alessandri F., Evangelisti G., Centurioni M.G., Gustavino C., Ferrero S., Barra F.

JOURNAL Archives of Gynecology and Obstetrics (News and Views)

INTRODUCTION

In response to the growing number of cesarean sections over the last two decades there has been an increased awareness of the postsurgical obstetric long-term sequelae following the procedure. Recently, the use of knotless barbed suture has been introduced in gynecology due to some of its favorable features such as the uniform distribution of tensile force.

PURPOSE OF THE STUDY

The purpose of this prospective study was to compare the incidence and characteristics of cesarean scar defects after uterine closure by double-layer barbed or smooth suture.

METHODS

- Since 2016 the study group has been employing a knotless barbed suture for performing double-layer uterine closure during cesarean section defined as a “fishbone” procedure. In this procedure the first continuous non-locking suture includes minimal decidua (<5 mm) and about two-thirds of inner myometrium; then, transverse myometrial bites of the second layer (approximately 5 mm) are taken with the needle traveling back and forth on either side of incision which seems partly akin to “figure-of eight” introflecting hemostatic suture.

RESULTS

- 239 women were included in the study who underwent the first elective cesarean section after 38 weeks of gestation. 94 underwent uterine closure by unidirectional barbed suture and 145 by conventional smooth suture.
- The incidence of postoperative complications was similar between the two groups.
- Six weeks after cesarean section, the ultrasonographic assessment of the residual myometrium thickness was significantly higher in the barbed suture than in the smooth suture group ($p < 0.001$).
- There was a lower incidence of isthmocele in the barbed suture than in the control group after 6 (20.5% versus 34.1%; $p = 0.032$) and 12 weeks of follow-up (21.1% versus 30.5%; $p = 0.042$, respectively).
- The mean isthmocele depth and length were lower in the barbed suture than the smooth suture group ($p = 0.001$ and $p = 0.002$, respectively).

CONCLUSION

The authors conclude that there is a growing body of scientific evidence that supports the implementation of the knotless barbed suture in both obstetrical procedures.

****THIS CONCLUDES THE CLINICAL SYNOPSIS OF THIS PUBLICATION****