

## Why polydioxanone?



**TO THE EDITORS:** We were excited to read the study, A randomized clinical trial of knotless barbed suture vs conventional suture for closure of the uterine incision at cesarean delivery, by Peleg et al.<sup>1</sup> The authors did a fine job of designing a study in this burgeoning niche and summarizing their findings clearly.

In our opinion, the applicability of their results will serve as a springboard for further research about the use of knotless barbed sutures and cesarean delivery.

Our 2 small reservations about the study involve the authors' choice polydioxanone for suture material and their oversight in not reporting on the needles used. Traditionally, uterine incisions at cesarean delivery have been closed with either chromic gut, polyglactin-910, or one of the newer synthetic monofilaments such as poliglecaprone 25. These suture materials with loss of tensile strength rates of about 14–28 days and complete absorption times of approximately 70–120 days<sup>2</sup> have years of proven clinical efficacy with regard to wound healing and infection.

Polydioxanone, with the loss of tensile strength rate of about 90 days and complete absorption times of approximately 232 days, is not commonly used with uterine closures during cesarean delivery and thereby introduces another less

researched variable to the study of suture materials for this procedure.

With regard to the needles, because bleeding at the suture line was studied, we believe it would be helpful to know which needles were used for the surgeries. ■

James A. Greenberg, MD  
Ronan Sugrue, M.B.B.C.H., B.A.O.  
Department of Obstetrics and Gynecology  
Brigham and Women's Hospital  
1153 Centre Street, Suite 3C  
Boston, MA 02130  
[jagreenberg@partners.org](mailto:jagreenberg@partners.org)

The authors report no conflict of interest.

### REFERENCES

1. Peleg D, Said Ahmad R, Warsof SL, et al. A randomized clinical trial of knotless barbed suture vs conventional suture for closure of the uterine incision at cesarean delivery. *Am J Obstet Gynecol* 2018;218:343.e1–7.
2. Chu CC, von Fraunhofer JA, Greisler HP. *Wound closure biomaterials and devices*. Boca Raton, FL: CRC Press; 1997.

© 2018 Elsevier Inc. All rights reserved. <https://doi.org/10.1016/j.ajog.2018.08.022>

## Early diagnosis in endometrial cancer minimizes the impact of treatments



**TO THE EDITORS:** We read with interest the paper from the Israeli Gynecology Oncology Group published by Gerner et al.<sup>1</sup> The authors investigated whether asymptomatic postmenopausal patients have a survival benefit in comparison with symptomatic patients. Analyzing a large amount of data of women with endometrial cancer, the authors observed that women receiving an incidental diagnosis of endometrial cancer have no better outcomes than patients with compelling symptoms (ie, vaginal bleeding).

Although the proportion of patients with FIGO stage IA is higher in asymptomatic than symptomatic women (82% vs 66%;  $P < .01$ ), the indolent nature of type I endometrial cancer might explain this finding. The higher prevalence of postoperative radiotherapy in symptomatic women (30.5% vs 40.6%;  $P = .02$ ) might have a role in mitigating the difference in survival outcomes of the 2 groups of patients.

One of the key points in the treatment of endometrial cancer is to try to avoid the use of radiotherapy, owing to the high risk of radiotherapy-related sequelae in those patients.<sup>2</sup> Study evaluating the role of lymphadenectomy in early-

stage endometrial cancer showed a less pronounced gain in the reduction of radiotherapy rates after the execution of lymphadenectomy (<5%).<sup>3,4</sup>

Here the authors observed that women having incidental diagnosis of endometrial cancer experienced a 10% decrease in radiotherapy administration rates. This feature is paramount owing to the impact of postoperative radiotherapy on treatment-related morbidity and quality of life.<sup>2</sup> Before abandoning the execution of endometrial sampling in asymptomatic women with thickened endometrium, further evidence is needed. ■

Giorgio Bogani, MD, PhD  
Antonino Ditto, MD  
Francesco Raspagliesi, MD  
Department of Gynecologic Oncology  
IRCCS National Cancer Institute  
Via Venezian 1  
20133 Milan, Italy  
[giorgio.bogani@istitutotumori.mi.it](mailto:giorgio.bogani@istitutotumori.mi.it)

The authors report no conflict of interest.

## REFERENCES

1. Gemer O, Segev Y, Helpman L, et al. Is there a survival advantage in diagnosing endometrial cancer in asymptomatic postmenopausal patients? An Israeli Gynecology Oncology Group study. *Am J Obstet Gynecol* 2018;219:181.e1–6.
2. Bogani G, Dowdy SC, Cliby WA, Ghezzi F, Rossetti D, Mariani A. Role of pelvic and para-aortic lymphadenectomy in endometrial cancer: current evidence. *J Obstet Gynaecol Res* 2014;40:301–11.

3. Benedetti Panici P, Basile S, Maneschi F, et al. Systematic pelvic lymphadenectomy vs. no lymphadenectomy in early-stage endometrial carcinoma: randomized clinical trial. *J Natl Cancer Inst* 2008;100:1707–16.
4. ASTEC Study Group, Kitchener H, Swart AM, Qian Q, Amos C, Parmar MK. Efficacy of systematic pelvic lymphadenectomy in endometrial cancer (MRC ASTEC trial): a randomised study. *Lancet* 2009;373:125–36.

© 2018 Elsevier Inc. All rights reserved. <https://doi.org/10.1016/j.ajog.2018.08.023>

## Uterine scar thickness as an important outcome for the evaluation of up-to-date uterine closure techniques



**TO THE EDITORS:** We read with great interest the recent paper titled “A randomized clinical trial of knotless barbed suture vs conventional suture for closure of the uterine incision at cesarean delivery” by Peleg et al.<sup>1</sup> The authors demonstrated that using barbed sutures for the closure of the uterus after uterotomy at cesarean delivery reduces operation time, the need for additional hemostatic sutures, and slightly reduces estimated blood loss. These are interesting findings.

Equally important is the question of whether there is a difference in the healing and stability of the uterine wall during subsequent pregnancies. During the last decades, rates of cesarean deliveries and uterine ruptures have been rising.<sup>2</sup> Techniques for uterine closure should therefore not be solely evaluated in terms of reduced operation time and blood loss but also evaluated as to their ability in reducing uterine rupture and guaranteeing safe vaginal births in subsequent pregnancies after cesarean.

Because the measurement of the uterine scar thickness via ultrasound has been reported as a marker for the stability of the uterine wall, it would be interesting to know whether the tested suture techniques lead to differences in myometrial thickness of the lower uterine segment. In several studies, this parameter has been assessed by means of transabdominal and transvaginal ultrasound scan 6 months postpartum. Roberge et al,<sup>3</sup> for example, used this method to show that double-layer closure with the unlocked first layer is associated with better uterine scar healing than a locked single layer.

Furthermore, we would like to address two points regarding up-to-date uterine closure techniques. First, the authors' conventional suture, running a locked first layer (followed by a running unlocked second layer), has been criticized in recent publications because it leads to higher hypoxia of the uterine tissue. This promotes defective wound healing, leading to higher rates of myometrial dehiscence and uterine rupture.<sup>4</sup>

Second, both supplemental videos show the operator including the endometrial layer into the suture. This

technique is also acknowledged to impede myometrial wound healing, thus encouraging myometrial defects.<sup>3</sup>

We thank Peleg et al for their valuable work, emphasizing the necessity that modern uterine closure studies should always take into account the established knowledge about uterine wound healing and the risk of uterine rupture in subsequent pregnancies. ■

Alexander Schwickert, Dr med  
Wolfgang Henrich, Prof Dr med  
Thorsten Braun, PD Dr med  
Charité—Universitätsmedizin Berlin  
Humboldt—Universität zu Berlin  
Klinik für Geburtsmedizin  
Charité, Campus Virchow Klinikum  
Augustenburger Platz 1  
Department of Obstetrics  
Berlin Institute of Health  
13353 Berlin, Germany  
[alexander.schwickert@charite.de](mailto:alexander.schwickert@charite.de)

The authors report no conflict of interest.

## REFERENCES

1. Peleg D, Ahmad RS, Warsof SL, et al. A randomized clinical trial of knotless barbed suture vs conventional suture for closure of the uterine incision at cesarean delivery. *Am J Obstet Gynecol* 2018;218:343.e1–7.
2. Al-Zirji I, Stray-Pedersen B, Forsén L, Daltveit A-K, Vangen S. Uterine rupture: trends over 40 years. *BJOG* 2016;123:780–7.
3. Roberge S, Demers S, Girard M, et al. Impact of uterine closure on residual myometrial thickness after cesarean: a randomized controlled trial. *Am J Obstet Gynecol* 2016;214:507.e1–6.
4. Roberge S, Demers S, Berghella V, Chaillet N, Moore L, Bujold E. Impact of single- vs double-layer closure on adverse outcomes and uterine scar defect: a systematic review and meta-analysis. *Am J Obstet Gynecol* 2014;211:453–60.

© 2018 Elsevier Inc. All rights reserved. <https://doi.org/10.1016/j.ajog.2018.08.024>