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AOGS LETTER TO THE EDITOR

Comment on "Longitudinal transvaginal ultrasound evaluation of cesarean scar niche incidence and depth in the first two years after single- or double-layer uterotomy closure: a randomized controlled trial"

Sir,

We read with interest a recent article published by Bamberg et al. (1) that takes up an interesting issue previously published in the same journal by Kataoka et al. (2) on uterine niche after a cesarean section (CS). These two prospective studies assessed the risk of developing a uterine wall defect at the site of cesarean scar with relation to the surgical closure technique. Both studies assessed the residual myometrium thickness and the depth of the niche as it appears immediately after CS (Kataoka et al.) and on long-term outcomes (24 months in Bamberg et al.) using saline contrast sonohysterography and a classical sonographic midsagittal view, respectively. These studies are very well conducted and presented but we would share with you some doubts about the method we currently use to evaluate the characteristics of the niche. In fact, the uterine wall defect is known to be associated to gynecological symptoms such as abnormal uterine bleeding, dysmenorrhea and infertility that sometimes requires surgical correction (3). A few years ago, we conducted a prospective longitudinal study comparing two different methods for uterine closure at CS and the long-term risk (24 months) of uterine wall defect that was assessed by ultrasonography and hysteroscopy (4). Before starting, we carried out a brief pivotal assessment of which sonographic parameter should be used and we realized that the internal defect (niche) is not even at hysteroscopy. In fact, in many cases the depth was not the main cause of clinical symptoms but rather the overall "absent" volume in the internal uterine wall. Statistical analyses demonstrated that a bell-shaped pouch area under the scar could best represent the association between ultrasonography, hysteroscopic assessment, symptoms, and need for surgical correction. In fact, in some cases the defect is shallow but wide, whereas in others it is deep but narrow, as in figure 2 in Bamberg et al. (1).

Certainly, CS is one of the most common surgical operations performed worldwide and its rate has dramatically increased in most developed countries, thus becoming a big concern (5). Yet, the question of which closure technique best avoids symptomatic uterine niche remains unanswered, but it seems even more important to find a non-invasive technique to assess the uterine wall defect. The two papers used different sonographic approaches, but we are still wondering if they accurately represent the uterine wall defect.

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