Is hysteroscopic treatment of cesarean scar pregnancy the best option?

Cesarean scar pregnancy is an increasingly more common type of ectopic pregnancy as the rates of cesarean section continue to increase worldwide. Currently, it is estimated that the rate of cesarean scar pregnancy is approximately 6% of all ectopic pregnancies in women with at least one previous low uterine segment incision (1). Tang et al. (2) attempt to address this question by conducting a retrospective cohort study of patients diagnosed with cesarean scar pregnancy in the first trimester managed with three hysteroscopic methods including hysteroscopy combined with dilatation and curettage (D&C; group A); systemic methotrexate followed by hysteroscopy D&C (group B); and uterine artery embolization or laparoscopic ligation of bilateral uterine arteries followed by hysteroscopy D&C (group C). The primary outcome of the study was the efficacy of hysteroscopic treatments and subsequent reproductive outcomes. The investigators found an overall success rate of 93.6% in 439 patients undergoing treatment (2).

Of the 394 women who completed follow-up, the rate of normal intrauterine pregnancy was 59.5%. However, the number of patients actually attempting pregnancy was low. It would be interesting to know whether this avoidance of pregnancy was based on physician recommendation or patient concern of recurrence. Furthermore, in regards to subsequent pregnancy, uterine artery embolization and, likely, laparoscopic ligation of bilateral uterine arteries can have a negative impact.

The use of electrocoagulation at the time of hysteroscopic treatment of cesarean scar pregnancy must be temporized, especially in types II and III cases. The concern is the potential risk of bladder trauma and subsequent dehiscence. For this reason, hysteroscopic repair of cesarean scars in the nonpregnancy state is not recommended when the myometrium above the defect is <3 mm (3). Use of the Foley catheter to tamponade bleeding at the ectopic pregnancy site may also increase the risk of dehiscence, especially in a patient with a type II defect.

We agree that there is no consensus regarding the optimal treatment of cesarean section ectopic pregnancy. All treatments, medical or surgical, do not address the treatment of the cesarean section defect, only the pregnancy itself. A novel treatment has been reported by Yoon et al. (4). Cesarean section ectopic pregnancy is treated via laparoscopic or robotic-assisted evacuation of products of conception, with immediate resection and repair of the cesarean section defect (4).

While the investigators have shown the superb efficacy with which hysteroscopy is able to treat cesarean scar pregnancies, one must think about the factors potentially affecting future fertility. While laparoscopic excision of cesarean ectopic pregnancy and repair of the cesarean scar is not without risk, it might be a better management option, which can improve future fertility.

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REFERENCES

1. Gonzalez N, Tulandi T. Cesarean scar pregnancy: a systematic review. J Minim Invasive Gynecol 2017;24:731–8.
2. Tang Q, Qin Y, Zhou Q, Tang J, Zhou Q, Qiao J, et al. Hysteroscopic treatment and reproductive outcomes in cesarean scar pregnancy: experience at a single institution. Fertil Steril 2021;116:1559–66.
3. Donnez O, Donnez J, Orellana R, Dolmans M-M. Gynecological and obstetrical outcomes after laparoscopic repair of a cesarean scar defect in a series of 38 women. Fertil Steril 2017;107:289–96.e2.
4. Yoon R, Sasaki KE, Miller CE. Laparoscopic excision of cesarean scar pregnancy with scar revision. J Minim Invasive Gynecol 2021;28:746–7.