



Is the risk of placenta accreta in a subsequent pregnancy higher after emergent primary cesarean or after elective primary cesarean?

It is higher after elective primary cesarean.

According to this retrospective matched case-control study from Australia, women who undergo elective primary cesarean have a higher risk of placenta accreta in subsequent pregnancies than women who undergo primary cesarean during labor (odds ratio, 3.00; 95% confidence interval, 1.47–6.12; $P = .025$).

Kamara M, Henderson JJ, Doherty DA, Dickinson JE, Pennell CE. The risk of placenta accreta following primary elective caesarean delivery: a case-control study. BJOG. 2013;120(7):879–886.

▶ EXPERT COMMENTARY

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Invasive disorders of the placenta (placenta accreta, increta, and percreta) are increasingly common. These conditions are associated with a high risk of massive obstetric hemorrhage, are the leading cause of peripartum hysterectomy, and are an important cause of pregnancy-related death in the United States and Western world.¹ It is clear that strategies must be developed to reduce the incidence of these disorders, and that most of these strategies must focus on prevention.

Earlier studies have consistently found that cesarean delivery is the most important

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risk factor for placenta accreta in a subsequent pregnancy, with the risk rising with the number of prior cesarean deliveries.¹ In recent years, the cesarean delivery rate has skyrocketed in most Western nations and is

WHAT THIS EVIDENCE MEANS FOR PRACTICE

The rate of cesarean delivery continues to rise. It is increasingly performed on an elective basis for such reasons as maternal request, suspected macrosomia, and breech presentation (often without giving the patient the option of version). Although additional investigations are necessary to validate the findings of this study, patients should be counseled that elective primary cesarean is not without risk, and that placenta accreta in a subsequent pregnancy is a potential consequence.

This study provides one more reason to attempt to find methods to reduce the cesarean delivery rate, particularly the rate of elective cesarean.

» **YINKA OYELESE, MD**

FAST TRACK

Women who had elective primary cesarean had three times the risk of placenta accreta in a subsequent pregnancy, compared with women who underwent primary cesarean during labor

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the major contributor to the increased incidence of placenta accreta.² A major effort is in place to prevent the first cesarean delivery.²

In this study, Kamara and colleagues focused on the timing of cesarean delivery to determine the impact on the likelihood of placenta accreta in subsequent pregnancies.

Details of the study

Kamara and colleagues found that elective cesarean delivery carries a threefold increased risk of placenta accreta in a subsequent pregnancy, compared with cesarean delivery during labor. To my knowledge, until now, no one has attempted to determine whether the timing of cesarean delivery affects the risk of subsequent placenta accreta.

The investigators hypothesize that the increased risk arises when a thick, nonlaboring myometrium is incised, as opposed to the thinned-out myometrium that occurs in labor. This theory is in keeping with the theory that placenta accreta develops when

a gestation implants into a cesarean scar.

Limitations of the study

The cases analyzed in this investigation came from a 15-year period, a time when practice patterns changed considerably.

The timing of cesareans performed during labor was not examined.

Primary cesarean was defined as the woman's first cesarean delivery, regardless of whether she had vaginal deliveries before or after the cesarean.

Retrospective case-control study methodology cannot address causality and may not be ideally suited to provide definitive findings. However, the findings are novel and deserve further investigation. ❌

References

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2. Spong CY, Berghella V, Wenstrom KD, Mercer BM, Saade GR. Preventing the first cesarean delivery: Summary of a joint Eunice Kennedy Shriver National Institute of Child Health and Human Development, Society for Maternal-Fetal Medicine, and American College of Obstetricians and Gynecologists Workshop. *Obstet Gynecol.* 2012;120(5):1181-1193.

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