EXAMINING
THE EVIDENCE

▪ Uterine rupture and dehiscence and VBAC
▪ Self-sampling for cervical cancer screening

THE QUESTION: Does the risk of uterine rupture and dehiscence increase with a previous cesarean delivery?

PAST STUDIES Prior research has demonstrated that patients undergoing a trial of labor after a cesarean delivery have an increased risk (1 in 200) of uterine rupture and dehiscence (URD).

THIS STUDY This 10-year review and case-control study examined 25,718 deliveries at a regional medical center to describe complications and identify risk factors for URD. During this period, 11 uterine ruptures and 10 uterine dehiscences occurred, along with 1 maternal death and 3 neonatal deaths. Other complications included intrapartum nonreassuring fetal status (67%), 5-minute Apgar score of less than 7 (52%), maternal blood transfusion (24%), neonatal hypoxic injury (14%), hysterectomy (14%), and endometritis (10%).

URD was independently associated with a fetal weight of greater than 8.8 lb, nonreassuring fetal status, oxytocin administration, and previous cesarean delivery. On the other hand, internal fetal monitoring was associated with a reduced risk of URD. The researchers concluded that in order to reduce the risk of URD, a delivery plan must include a cesarean history and fetal macrosomia assessment, along with the judicious use of oxytocin and intrapartum monitoring for nonreassuring fetal status.

Specific factors estimating the **risks or benefits** of vaginal birth after cesarean **remain controversial.**

FIND THIS STUDY Diaz SD, Jones JE, Seryakov M, Mann WJ. April 2002 issue of the *Southern Medical Journal*; abstract online at www.medscape.com/viewarticle/432436.

WHO MAY BE AFFECTED BY THESE FINDINGS? Gravidas and practitioners contemplating vaginal birth after cesarean (VBAC).

EXPERT COMMENTARY In the past decade, the issue of VBAC has dominated the obstetrics field. Attempts to lower cesarean-delivery rates have been fueled largely by concerns regarding cost of care. While the promotion of VBAC may save insurance companies money, the risks of a trial of labor cannot be ignored and must be thoroughly examined.

This study suggests that birth weight and oxytocin use may increase the risk of URD. However, these findings have not been support-

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ed by other studies.[1,2] Perhaps it is because this retrospective study harbors many limitations. For example, only symptomatic dehiscences were "discovered." It is likely that a significant number of successful and uncomplicated VBACs sustained some degree of "bloodless dehiscence." These, however, could not be accounted for unless routine inspection of the lower uterine segment was performed after each delivery. Another limitation of this study is the absence of labor management standards. The authors concluded that use of internal monitoring reduced the likelihood of URD, but this reduction could be a proxy for the more judicious use of uterotonic agents. Further, we do not have data regarding "decision-to-incision" intervals once fetal distress or URD was recognized.

It is important to note that the issue involved here is not one of equivalent risk, but rather, of acceptable risk, which can be determined only by the patient and her physician. At present, I'm inclined to agree with a *New England Journal of Medicine* editorial suggesting that if the safety of the fetus is the only consideration, elective repeat cesarean (ERC) should be the delivery of choice.[3] Clearly, not every patient or clinician will see it this way.

BOTTOM LINE The current study underscores the complexity of this issue. But while its conclusions may not be not unanimously agreed upon, the patient and the practitioner would be well advised to recognize that VBAC does indeed increase the risk of URD. Further, they should note that specific factors estimating the risks or benefits of VBAC remain controversial.

While these matters continue to be debated, facilities need to adopt a plan wherein rapid accomplishment of an emergency cesarean can occur and neonatal resuscitation personnel are immediately available.

JOHN T. REPKE, MD
PROFESSOR AND CHAIRMAN,
DEPARTMENT OF OBG,
PENN STATE COLLEGE OF MEDICINE-
MILTON S. HERSHEY MEDICAL CENTER,
HERSHEY, PA

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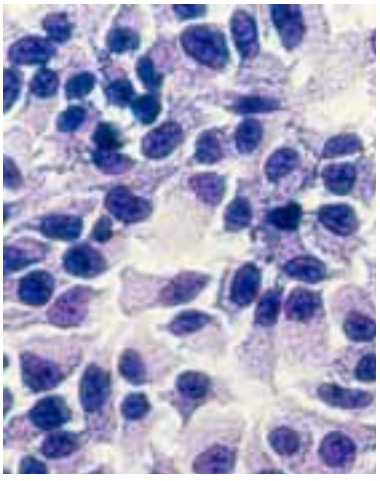
2. Selop CM, Shipp TD, Repke JT, et al. Uterine rupture during induced or augmented labor in gravid women with one prior cesarean delivery. *Am J Obstet Gynecol*. 1999;181:882-886.
3. Greene MF. Vaginal delivery after cesarean section—Is the risk acceptable? [editorial] *N Engl J Med*. 2001;345:54-55.

THE QUESTION: Is self-sampling effective in cervical cancer screening?

PAST STUDIES Prior research has shown self-collected cervical cell samples to be of variable concurrence to clinician-collected samples.

THIS STUDY Researchers evaluated 1 self- and 1 clinician-collected sample from 253 women, ages 16 to 88, randomly selected from a population at high risk for cervical neoplasia. Participants collected self-samples by rotating a cotton swab against the vaginal epithelium, and possibly, the cervix. Next, a colposcopist collected samples with an Ayre's spatula and endocervical brush, then conducted a colposcopy. All specimens were frozen. Polymerase chain reaction (PCR) studies tested for both low-risk (LR) and high-risk (HR) viral types.



Positive HPV results from self-sampling

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and physician sampling were 23% and 29%, respectively. While there was no significant difference in the overall results from self-collected samples compared with physician-collected specimens, the prevalence of HR HPV among self-collected samples was 17%, as opposed to 26% in physician-collected samples. Further, testing for HPV detection on self-collected samples resulted in 50% more missed diagnoses of cervical cancer than did samples collected with a spatula and endocervical brush, and in 33.3% more missed diagnoses of high-grade cervical intraepithelial neoplasia. Hence, the researchers concluded that a sample for cervical HPV detection collected with a spatula and endocervical brush provides better results for primary cervical cancer screening than does self-sampling with a cotton-tipped swab.

FIND THIS STUDY Lorenzato FR, Singer A, Ho L, et al. May 2002 issue of the *American Journal of Obstetrics and Gynecology*; abstract online at www.us.elsevierhealth.com/ajog.

WHO MAY BE AFFECTED BY THESE FINDINGS?

All women screened for cervical cytology.

EXPERT COMMENTARY There has been a marked decrease in invasive cervical cancer prevalence and mortality in countries where there are organized cytologic screening programs. Even so, an estimated 30% of US women with invasive cervical cancer had not had a Pap smear in at least 5 years, and 50% had never been screened. Moreover, developing countries have both health-care infrastructure deficiencies and cultural taboos that have thus far precluded universal screening.

Many women may find self-sampling to be a more convenient and comfortable way of screening for cervical cancer. Thus, if self-sampling could be substituted for clinician examinations, the detection of preinvasive cervical neoplasia cases could be substantially increased. This study, however, demonstrated a poor correlation with colposcopic and histologic diagnoses of high-grade squamous intraepithelial lesions and invasive cancer. Of note, this study's conclusions differed from a similar project conducted in South Africa in which researchers found a high sensitivity but poor specificity in self-collected specimens.[1]

BOTTOM LINE Although self-sampling is promising, the present self-collection technique may provide a false sense of security for patients with high-grade lesions. Since these patients need more close monitoring than those with low-grade lesions, this method is not ready for widespread implementation. Further research aimed at improving the safety and efficacy of self-sampling is still needed. ■

MELVIN GERBIE, MD
SECTION CHIEF, GYNECOLOGY
NORTHWESTERN MEMORIAL HOSPITAL
CHICAGO, ILL

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