High-Dose Misoprostol Deemed Safe, Effective

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WHITE SULPHUR SPRINGS, W.VA. — A high dose of vaginal misoprostol effects more rapid termination of second-trimester pregnancy than does a low dose and is not associated with an increase in side effects or complications, Rodney K. Edwards, M.D., reported during the annual meeting of the South Atlantic Association of Obstetricians and Gynecologists.

Dr. Edwards presented the results of a retrospective study comparing delivery outcomes with two misoprostol induction protocols at his institution, the University of Florida.

The low-dose regimen (200 mcg every 12 hours) was in use before July 1, 2002, and the current high-dose regimen (400 mcg every 6 hours) has been in use since then.

The cohort included 147 women who sought termination of second-trimester pregnancy from 1996 to 2004. All the women were carrying a singleton fetus of 13-27 weeks' gestation (median 20 weeks).

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DR. EDWARDS

There were 100 women in the low-dose group and 47 in the high-dose group. Their mean age was 27 years. About 36% of the women were nulliparous; 56% had a prior vaginal delivery, and 12% had a prior cesarean delivery.

The most common indication for induction was fetal anomaly. Other indications were fetal death, premature rupture of membranes, and maternal indications, such as severe preeclampsia.

The high-dose group delivered significantly quicker than the low-dose group (mean time 13.25 hours vs. 22.5 hours). In the high-dose group, 81% of patients had delivered by 24 hours, compared with 54% of the low-dose group.

More patients in the low-dose group required a second abortifacient to effect delivery (27% vs. 6%).

Four low-dose patients failed to deliver vaginally during the same hospital admission. One had a hysterotomy due to a failed induction and rupture of membranes. Three were discharged home undelivered and returned for another attempt.

One high-dose patient, who had a prior cesarean and a collagen abnormality, experienced a ruptured uterus posteriorly and underwent hysterotomy.

Side effects (nausea, vomiting, and diarrhea) were uncommon in both groups, occurring at rates of less than 5%.

Postpartum hemorrhage also occurred in fewer than 5% of patients in both groups.

Dr. Edwards reported an unexplained finding of a higher incidence of clinical chorioamnionitis in the high-dose group (17% vs. 5% in the low-dose group). Among the 100 patients for whom placental pathology was available, histologic chorioamnionitis was also more common in the high-dose group (29% vs. 11%).

"Because of this finding, we think the high-dose regimen did not cause fever and a false diagnosis of chorioamnionitis, but the group for some reason actually did have a higher incidence," Dr. Edwards said.

He could offer no clear explanation of this finding, which he called "counterintuitive," given that the shorter labors seen in the high-dose group might have been associated with fewer vaginal exams.

In both groups, dead fetuses were more quickly delivered than live fetuses. In the low-dose group, the median time to delivery was 23.5 hours for a live fetus and 11 hours for a dead fetus. In the high-dose group, the median time to deliver a live fetus was 15.5 hours, compared with 11 hours for a dead fetus.

When the two groups were analyzed considering only live fetuses, however, the high-dose protocol still effected earlier delivery, with a median time to delivery of 15.5 hours, compared with 23.5 hours for the low-dose group, according to Dr. Edwards. ■