Induction of labor with vaginal prostaglandin-E2 in women with one previous cesarean section

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Induction of labor is considered necessary in certain clinical situations. These include postdate pregnancy, term premature rupture of membranes, preeclampsia, intrauterine growth retardation, and significant medical diseases such as diabetes mellitus at term. Intravaginal or intracervical dinoprostone (prostaglandin-E2 [PGE2]) is the most used pharmacologic method to ripen the cervix and induce labor. Cervical ripening and labor induction in women with one previous low transverse cesarean section (CS) is controversial. The objective of this study was to assess the safety and effectiveness of induction of labor with vaginal PGE2 in candidate women for vaginal birth after cesarean (VBAC).

From January 1995 to December 2000, there were 510 induction of labor with vaginal PGE2 (dinoprostone; ProstinTM E2, Upjohn, London, United Kingdom) at King Fahad Armed Forces Hospital, Jeddah, Kingdom of Saudi Arabia. The outcome of induction of labor with vaginal PGE2 (3 mg tablet every 6 hours for a maximum of 3 doses) in 41 women with one previous low transverse CS was compared to the outcome of spontaneous labor of 82 women with one previous CS matched for age, parity, and gestational age at delivery. There was no statistical significant differences in the duration of labor, fetal birth weight, estimated blood loss at delivery, and Apgar scores in the 2 groups. In the induction group, 27 (65.9%) women delivered vaginally and 14 (34.1%) women by emergency cesarean section (ECS). In the control group, 58 (70.7%) women delivered vaginally and 24 (29.3%) women by ECS. However, in the induction group the mean duration of the hospital stay of the mother was longer (p = 0.019) and there was one (2.4%) asymptomatic uterine dehiscence discovered at CS compared to one (1.2%) in the control group. Both cases of asymptomatic uterine dehiscence of the CS scar were easily repaired and no hysterectomy was performed. In a review of 10 studied published in 2000,[1] the incidence of uterine scar disruption was not differ from women who received PGE2 and women who entered labor spontaneously (1.6% versus 1.23%, odds ratio of 1.46, 95% confidence interval 0.96-2.22). However, more recent studies showed an increase in the uterine rupture and decreased vaginal delivery rates with induction with PGE2.[2,3] The American College of Obstetrics and Gynecologist[4] based on limited or inconsistent scientific evidence recommended that the use of prostaglandin gel for VBAC "requires close patient monitoring". It has been shown repeatedly from many studies of VBAC that one of the important prognostic factors for success is history of previous vaginal delivery. This was not carried out in other studies. Our findings suggest that induction of labor with PGE2 in women candidates for VBAC is effective and may be safe. However, the couple should be counseled on the potential increased risk of uterine scar dehiscence or rupture.

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References

1. Sanchez-Ramos L, Gaudier FL, Kaunitz AM. Cervical ripening and labor induction after previous cesarean section. ***Clin Obstet Gynecol*** 2000; 43: 513-523.
2. Lydon-Rochelle M, Holt VL, Easterling MD, Martin DP. Risk of uterine rapture during labor among women with a prior cesarean delivery. ***N Engl J Med*** 2001; 345: 3-8.
3. Sims EJ, Newman RB, Thomas C, Hulsey TC. Vaginal birth after cesarean: To induce or not to induce. ***Am J Obstet Gynecol*** 2001; 184: 1122-1124.
4. Americal College of Obstetricians and Gynecologists. Vaginal birth after previous cesarean delivery. ACOG Practice Bulletin No. 5. Washington (DC): American College of Obstetricians and Gynecologists; 1999.

The association of acute myocardial infarction and pregnancy loss in young female with primary antiphospholipid syndrome

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Acute arterial and venous thrombosis is a common manifestation of antiphospholipid syndrome.[1] Acute myocardial infarction may be a clinical manifestation in young adults.[2] Pregnancy in women who are positive for antiphospholipid antibodies may have recurrent pregnancy loss.[3] We describe a young female with no history of venous thrombosis, presented with an incomplete abortion with complicated acute myocardial infarction, thrombolytic therapy was given with no complications. Her blood test was positive for antiphospholipid antibody and the case proved to be primary antiphospholipid syndrome.