Induction of labor in women with previous single cesarean section
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Objective
As conflicting data exist concerning the safety of induction of labor (IoL) in women with previous one lower segment cesarean section (CS), we aimed to assess pregnancy outcome following induction of labor in women with previous single low transverse CS.

Methods
A retrospective cohort study. All singleton pregnancies with one previous CS which underwent IoL during 2008-2012 were included (study group). Their pregnancy outcome was compared to those pregnancies with previous single CS who admitted with spontaneous onset of labor (control group). Either vaginal PGE2 tablets or extra-amniotic balloon were used for IoL.

Results
Overall, 1,898 pregnancies were eligible, of them, 259 underwent induction of labor, and 1,639 were admitted with spontaneous onset of labor. Demographic data, parity, gestational age at delivery and birthweight were similar. The overall rate of cesarean delivery was significantly higher in the study group (16.2% vs. 10.7%, p=0.01), mainly due to labor dystocia (8.1% vs. 3.7%, p<0.01) but similar rate of CS due to non-reassuring fetal heart rate. No difference was found in the rate of either uterine rupture or dehiscence (1.1% vs. 1.2%, p=0.36 and 1.5% vs. 1.2%, p=0.56 respectively). Short term neonatal outcome was similar between the groups. On multivariable logistic regression analysis, IoL was not independently associated with uterine rupture (OR 1.33, 95% C.I. 1.0-4.84, p=0.59).

Conclusion
Our data suggest that IoL in women with one previous low segment cesarean section does not increase the risk of uterine rupture and does not adversely affect immediate neonatal outcome.