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Original Research

Term Labor Induction Compared With Expectant Management

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Abstract

OBJECTIVE: To determine whether changing the definition of the group to which induction is being compared (ie, noninduced delivering during the same week as those induced compared with two definitions of expectant management) changes the association of labor induction and increased cesarean risk.

METHODS: A New York State birth-certificate database was used to estimate odds ratios for cesarean delivery associated with labor induction at term. The analyses used three definitions of controls: cesarean delivery after induction compared with after spontaneous labor by week (week-to-week), induction at a given gestation age compared with expectant management of all other women after gestational age (all above), or induction at a given gestational age compared with expectant management of all other women at or after that gestational age (at or above). Chi-square logistic regression was used for comparisons and adjustment for possible confounders.

RESULTS: All variations of comparison groups were associated with increased unadjusted cesarean risk after induction, although not after 39 weeks in the all-above group. After adjustment, increased risk persisted from 37 to 41 weeks using the week-to-week group and from 38 to 41 weeks in the at-or-above group (odds ratios 1.24 to 1.45) but was no longer significant in the all-above group. The excess cesarean delivery risk associated with labor induction is between 1 and 2 per 25 inductions.

CONCLUSION: Labor induction is associated with increased cesarean risk whether using a week-to-week comparison group or an expectant group that includes women the same week or beyond that of the index induction, even after adjustment for parity, high-risk factors, and demographic variables. Although the magnitude of increased risk for a given woman undergoing induction is not large, women nonetheless should be informed of this increased risk.

LEVEL OF EVIDENCE: II