Induced labor after water breakage poses no harm to mothers or babies, research finds

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Credit: Tel Aviv University

A new Tel Aviv University study has determined that natural, spontaneous deliveries and induced deliveries following the rupture of the amniotic sac in the mother share similar neonatal outcomes, contradicting common wisdom.

"Induced labor—the process of jumpstarting delivery using prostaglandin—has gotten a bad rap. We found little justification for this" in the case of women whose water broke prematurely, said principal investigator Dr. Liran Hiersch, who led the study with Dr. Eran Ashwal, both of TAU's Sackler School of Medicine and the Helen Schneider Hospital for Women at Rabin Medical Center. "People have

an idea that everything natural is better, including childbirth. But induction is not necessarily more dangerous for mother and child than Mother Nature herself."

The study was published on August 8, 2016, in the *Archives of Gynaecology and Obstetrics*.

Fears about induced labor are unjustified

Most expectant mothers are warned about artificially induced deliveries. These warnings counsel that induction may cause a low fetal heart rate, an increased risk of infection to mother and baby, and uterine rupture or excessive bleeding after delivery. "We have found that induction produces healthy mothers and infants, with risk factors similar to those of spontaneous deliveries," Dr. Hiersch said.

The researchers evaluated the perinatal outcome of 625 women admitted to Rabin Medical Center in Israel with prolonged (24-hour) premature rupture of membranes or water breakage. Women who did not exhibit the spontaneous onset of labor within 24 hours from the moment their water broke underwent prostaglandin induction. These were then compared to those women who did develop the spontaneous onset of labor within 24 hours of being admitted. No significant difference was found between the groups regarding maternal age, parity and obstetrical complications.

Women in the induction group were found to be at an increased risk for Caesarean section (CS), but researchers believe this was due mainly to blocked birth canals and not the induction itself.

Artificial induction is a possibility for all expectant mothers who have approached two weeks past their delivery date, who experience high blood pressure or diabetes, who have a uterine infection or who simply

haven't experienced contractions despite their water having broken. These women are often hospitalized for 24 hours. But after 24 hours have passed without natural delivery, most medical professionals will induce labor artificially to reduce subsequent risks to mother and child.

Patients should be reassured

"There is a palpable fear among women who are waiting for the contractions to begin," said Dr. Hiersch. "They fear fetal distress, they fear infection, umbilical cord trouble, but we have found no basis for their fears. These mothers should be assured that induced labor poses no increased risk to the health of their babies and themselves."

"This study gives us, medical professionals, the reassurance we require to continue doing what we do. Hopefully, it will also reassure our patients, which is equally important," Dr. Hiersch concluded.

Dr. Hiersch is currently working on finding variables that predict which women may spontaneously go into labor following the premature rupture of membranes.

More information: Eran Ashwal et al, Perinatal outcome in women with prolonged premature rupture of membranes at term undergoing labor induction, *Archives of Gynecology and Obstetrics* (2016). DOI: 10.1007/s00404-016-4126-6

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