Effect of Oxytocin augmentation of labor and the maternal and neonatal outcomes in a secondary level academic perinatal care center

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**Background:** A major cause of failure to achieve spontaneous vaginal birth is delay in labour due to presumed inefficient uterine action and Oxytocin is given to increase contractions (1). The use of synthetic oxytocin to induce and/or augment labor is on the rise (2). Exposure to synthetic oxytocin may have adverse effects on the infant's development (3).

**Aims:** To evaluate maternal and adverse neonatal effect of oxytocin given to mothers during labor

**Methods:** A retrospective cohort analysis of 1443 singleton infants born at 34 to 42 weeks of gestation in one secondary level perinatal care center (January to December, 2015). Mothers were divided into two groups, according to the exposure to the oxytocin either for induction or augmentation of labor taking care of the inclusion and exclusion criteria. Outcomes variables were cesarean delivery, need for neonatal resuscitation, thick meconium, neonatal jaundice, birth related trauma, and polycythemia
Pregnancy outcomes according to oxytocin augmentation

The mean age of oxytocin group was 26.44 (±6.9) years while in control group was 25.68 (±4.2) years. OR and CIs for oxytocin group was calculated and show a statistically significant decrease risks for cesarean section OR 0.14 [0.005-0.45], and increase risk of birth related trauma OR 6.77 [2.08-22.56], neonatal jaundice OR 1.27 [1.02-1.64]; thick meconium OR 0.95 [0.67-3.87], polycythemia OR 1.44 [1.2-2.78] and successfully breast feeding OR 1.3 [1.02-1.66]
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Gestational age and birth weight according to oxytocin augmentation and polycythemia
Conclusions

The most commonly used drug for the induction and augmentation of labor is associated with adverse neonatal outcome but not with cesarean risk.

Reference:

