Maternal and neonatal outcome in term and post-term pregnancies, investigating the impact from parity and high BMI.

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Background: Swedish National guideline for the management of post term pregnancies has changed in the last years. But we are still conservative in our management of late term till post term pregnancies in comparison with other Countries. Few studies have stratified for parity in pregnancies more than 41+3 weeks of gestation, prolonged pregnancies. In order to find women and neonates that might benefit from induction in prolonged pregnancies the first two studies were conducted.

In the European perinatal health report, 2015 it is stated that smoking and Body Mass Index (BMI) are risk factors for stillbirth in term pregnancies. Smoking is decreasing, but the number of women starting pregnancy with BMI > 25kg/m2 is increasing. The National health board of Sweden published “dödfödda” in November 2018 and also shows the increased risk for stillbirth with high BMI in term pregnancies.

Aims:

I: To see if an active management of labor after 41 weeks and 3 days of pregnancy is associated with better maternal and neonatal outcome, stratified for parity.

II: To see if neonates to any subgroup of multiparous women could be found that benefits from active management of labor after 41 weeks and 3 days.

III: To try to investigate why Body Mass Index (BMI) >25 kg/m2 is related to increased risk of stillbirth in term pregnancies. Are the neonates SGA, Small for gestational age or LGA, Large for gestation age?

IV: To evaluate risks with proceeding gestational length for the women starting their pregnancy with BMI > 30 kg/m2 in relation to neonatal and maternal complications.
Results:
I: Neonates of primiparous women, but not of multiparous women gain from an active management of labor in pregnancies >41+3.

II: We found a significant association between induction and CS. A significant heterogeneity between groups was found, but we could not identify particular groups of women with pronounced higher (or lower) chance of vaginal birth with a healthy infant compared to other two-parous women.

Implications:
Our result indicates that de decision of induction of labor or not is a decision that not only should depend of the length of pregnancy but also depend on parity and the history of delivery start and mode. Our result indicates that neonates of primiparous women gain from induction of labor after 41+3 weeks of gestation.

Published papers:

II: Neonatal and maternal outcome in second parous women in prolonged pregnancies, 290 days and beyond. Lindegren L, Stuart A, Carlsson Fagerberg M, Källén K.
To be submitted May 2019