

Induction of labour at 39 weeks

Last month, US researchers found that caesarean section was less frequent in women who had an elective induction at 39 weeks. Sophie Windsor discusses the results

In January 2018, researchers from the Biostatistics Center at George Washington University presented an abstract from the results of A Randomized Trial of Induction Versus Expectant Management (ARRIVE) at the Society for Maternal-Fetal Medicine in the US (Grobman, 2018). The study found that caesarean section was less frequent in women who had an elective induction at 39 weeks ($n=569$; 18.6%) compared with those who had expectant management ($n=673$; 22.2%) (risk ratio=0.84% CI 0.76–0.93%).

The aim of this study was to test the hypothesis that elective induction of labour at 39 weeks compared with expectant management among low-risk primiparous women reduced the risk of perinatal mortality and neonatal morbidity.

The researchers concluded that inducing labour at 39 weeks in low-risk primiparous women resulted in a lower instance of birth by caesarean section. They also concluded that there was no significant change in the frequency of a range of adverse perinatal outcomes, such as perinatal death, infection and hypoxic ischaemic encephalopathy.

Evaluating the study

Just over 6000 women were randomly assigned to receive induced labour or expectant management. Overall, 3062 women received induction of labour and 3044 received expectant management between March 2014 and August 2017. These numbers unfortunately do not convince me that this study was large enough to pick up statistical differences.

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Researchers in the US aimed to establish the effect of induction of labour at 39 weeks

Only the abstract from this trial has been released so far, meaning that full analysis of data is limited. From the information given in the abstract, I think it essentially shows that, for women who have an accurately dated pregnancy, induction of labour at 39 weeks is reasonable but not without risk. Potential consequences include increased risks of 3rd and 4th degree tears, and there is no evidence for reduced perinatal morbidity. Although this was a randomised control trial, it was not blinded (I am not sure how you could blind induction of labour at 39 weeks versus wait for labour—presumably, those who consented to induction of labour wanted to be induced). Nevertheless, this is not representative of the general population, meaning that the results cannot be generalised.

Furthermore, the main composite outcome of perinatal death was the same percentage for induction of labour ($n=2$;

0.1%) as for expectant management ($n=3$; 0.1%). Of course, the abstract cannot go into much detail regarding the effects of these findings on women's experiences and resource allocation, nor can it discuss the service impact more generally.

What will this study mean for the future of maternity services? What is important here is the maternal desire and choice for induction of labour, and there will be many women who do not want to be induced at 39 weeks. Personally, I would be concerned if it became routine practice to start offering induction of labour for all women at 39 weeks following the results of this trial. **BJM**

Grobman W. Abstract LB01: A randomized trial of elective induction of labor at 39 weeks compared with expectant management of low-risk nulliparous women. *American Journal of Obstetrics and Gynecology*. 2018; 218(1): S601. <https://doi.org/10.1016/j.ajog.2017.12.016>

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