Induction of labour for improving birth outcomes for women at or beyond term

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Compared with waiting indefinitely or waiting at least one week for labour to occur spontaneously, labour induction after 41 weeks of gestation is associated with fewer perinatal deaths. Labour induction can help reduce the need for additional monitoring of women and reduce the duration of hospitalization, especially in settings where women need to be hospitalized earlier in pregnancy to avoid the situation in which they are unable to reach the hospital in an emergency.

RHL Commentary by Cuervo LG

1. EVIDENCE SUMMARY

The existing evidence from observational studies links post-term pregnancy with increased perinatal morbidity and mortality. This systematic review (1), summarizes the best available evidence on the effectiveness of labour induction at or beyond term to reduce perinatal mortality and morbidity.

Nineteen randomized controlled trials were included. A policy of labour induction at 41 completed weeks or later was associated with reduced all-cause (Relative risk [RR]: 0.30; 95% Confidence interval [CI]: 0.09, 0.99) and noncongenital abnormality related perinatal deaths (0 versus 7 deaths). Fewer babies in immediate induction groups had meconium aspiration syndrome.

This review updates and replaces the earlier version written by Crowley (2). The main differences in this update are: (i) the current version focuses only on labour induction at term or beyond as opposed to other interventions reviewed in the previous version; (ii) excludes quasi-random (or alternate allocation) trials; and (iii) includes six trials published since the last update of the earlier version.

2. RELEVANCE TO UNDER-RESOURCED SETTINGS

2.1. Magnitude of the problem

The incidence of post-term pregnancy has been found to be as high as 14% in some rigorously conducted observational studies (3). However, reports from different settings suggest that it varies between 3% and 14%, regardless of ethnicity (3, 4, 5, 6). Post-term pregnancy may be the most common indication for induction of labour (7). At a university hospital in Colombia at least 50% of antenatal fetal monitoring prescriptions were for the indication of post-term pregnancy (5).
Although in most cases post-term pregnancy ends with an uncomplicated labour and delivery, serious complications can occur. Common medical consequences of post-term pregnancy include fetal macrosomia, difficult or obstructed labour, placental insufficiency, birth trauma and meconium aspiration.

Post-term pregnancy is best managed in health care settings where there is capacity for patient monitoring and facilities exist for the treatment of complications. In the absence of such capacity induction of labour becomes risky. However, since many women in developing countries do not have access to such health care facilities, post-term pregnancy remains an important health problem. In isolated settings that are far from hospitals in developing countries, induction of labour is often undertaken with home remedies and folk medicines. Herbal remedies such as 'isihlambezo' are widely used in Southern Africa (8) and many plant extracts have been shown to have uterotonic effects (9).

2.2. Applicability of the results

Although most trials were conducted in industrialized countries some were conducted in various (China, India, Thailand, Turkey) low and middle-income countries. Trials included in this review focused on the use of drugs used for induction of labour. The biological response to induction of labour may be similar in all settings. However, the monitoring needs during labour induction could be difficult to meet in many hospitals in developing countries due to staff shortages.

2.3. Implementation of the intervention

A policy of routine induction of labour at 41 completed weeks is recommended. This intervention would help to reduce the need for additional monitoring of women and would reduce the time of hospitalisation in especially those settings where women need to be hospitalised earlier in pregnancy to avoid the situation in which they are unable to reach the hospital in an emergency. One important consideration is the need for accurate gestational age determination. If gestational age is unsure caution needs to be exercised to implement this policy.

3. RESEARCH

A myriad of complementary, indigenous and folk medicine interventions are being regularly used for induction of labour in many settings, but these remain poorly studied. These interventions are usually accessible, cheap and well accepted. Some of these remedies—such as drinking raspberry leaf tea, camomile tea, eating spicy curry, isihlambezo and having sexual intercourse late in pregnancy—may merit rigorous evaluations through randomized controlled trials.

There is a need for more powerful RCTs with well-defined eligibility criteria and clinical outcomes for post-term pregnancy in settings where facilities for close fetal monitoring are not available (3).

These trials should collect data on both beneficial and possible adverse effects of the interventions.

References
- Crowley P. Interventions for preventing or improving the outcome of delivery at or beyond term. Cochrane Library; Issue 2, 2000.
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