

How long do we administer syntocinon before calling it a failed induction?

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Introduction

Failed induction of labour (IOL) is a common reason for caesarean section. Failed IOL is defined as failure to progress to the active phase of labour after at least 12 to 18 hours of syntocinon¹⁻³. The aim of this study was to establish the incidence of failed induction and the duration of syntocinon administration prior to decision for caesarean section.

Methods

A retrospective audit of the IOLs that resulted in caesarean section was conducted from July 2018 to June 2020 at a teaching hospital. Patients whose primary indication for caesarean section was failure to active phase of labour. This was defined as failure to progress to ≥ 5 cm cervical dilatation. Duration of latent phase was measured from the time of initiation of syntocinon until the decision for Caesarean section. Patients that had a previous caesarean, or did not receive syntocinon were excluded. Collection of all data was through electronic health records. Descriptive analysis was used.

References

1. ACOG, et al. Safe prevention of the primary cesarean delivery. Am J Obstet Gynecol. 2014 Mar;210(3):179-93.
2. Kawakita T et al. Duration of oxytocin and rupture of the membranes before diagnosing a failed induction of labor. Obstet & Gynaecol. 2016 Aug;128(2):373-380.
3. Grobman WA et al. Defining failed induction of labour. Am J Obstet Gynaecol. 2018 Jan;218(1):122.
4. RANZCOG. Intrapartum Fetal Surveillance Clinical Guideline - Fourth Edition 2019.
5. World Health Organisation. WHO recommendations: intrapartum care for a positive childbirth experience. Geneva: WHO; 2018.

Results

230 of the 3369 (6.8%) patients that underwent an IOL had an emergency Caesarean section for a primary indication of failed IOL. Primigravida and multigravida comprised 94.8% and 5.2% respectively. 16.9%, 44.3%, 35.6%, and 2.6% patients had a duration of syntocinon <8 hours, 8-12 hours, 12-18 hours, and >18 hours, respectively (Figure 1). Of those that had <12 hours of syntocinon, 53.9% had a normal cardiotocography or isolated abnormalities unlikely to be associated with fetal compromise according to RANZCOG Intrapartum Surveillance Clinical Guidelines³. The vast majority (95.7%) had no significant signs of obstruction including maternal fever, persistent tachycardia, and haematuria.

Discussion

Failed IOL is described in the literature as a failure to reach active phase of labour or 5cm dilatation^{2,5}. Based on this definition, this study found approximately 1 in 15 patients had a caesarean section for failed IOL. 61.2% of these patients had <12 hours of oxytocin before proceeding to emergency caesarean section for failed IOL, despite more than half (52.4%) having no signs of likely maternal or fetal compromise. If maternal and fetal status allow, oxytocin should be administered for 12-18 hours after rupture of membranes prior to diagnosing a failed IOL¹⁻³. A large retrospective study found most women (96.4%) reached active phase by 15 hours, and more than 40% of those with a latent phase >18 hours had a vaginal delivery².

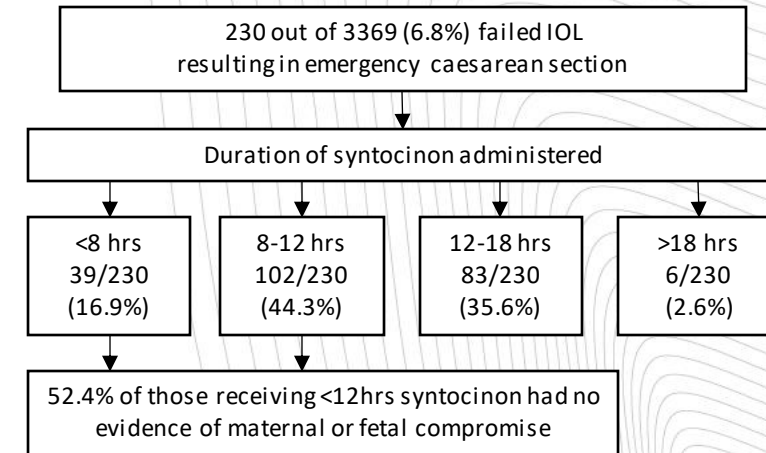


Figure 1. Incidence of failed IOL and duration of syntocinon administered

Key points

- Caesarean section for failed IOL occurred in 6.8% of patients
- 61.2% had <12 hours of syntocinon despite over half having no evidence of fetal or maternal compromise
- If labour is otherwise uncomplicated, we advocate at least 12-18 hours of oxytocin prior to diagnosing a failed IOL
- Future prospective research is needed to determine whether this recommendation results in a reduction in caesarean section rates, and improves maternal and neonatal outcomes