Journal de Gynécologie Obstétrique et Biologie de la Reproduction (2016) xxx, xxx—xxx

Disponible en ligne sur ScienceDirect www.sciencedirect.com

Elsevier Masson France EM|consulte www.em-consulte.com

ORIGINAL ARTICLE

Effectiveness and safety of induction of labor for term breech presentations

Efficacité et sécurité du déclenchement du travail en cas de présentation du siège à terme

G. Bleu[a,*], J. Demetz[a], S. Michel[b], A. Drain[c], V. Houfflin-Debarge[a,d], P. Deruelle[a,d], D. Subtil[a,e]

[a] *Pôle Femme—Mère-Nouveau-né, hôpital Jeanne-de-Flandre, université Lille—Nord-de-France, 1, rue Eugène-Avinée, 59037 Lille cedex, France*
[b] *Pôle d'obstétrique, hôpital de Roubaix, 59100 Roubaix, France*
[c] *Pôle d'obstétrique, hôpital de Denain, 59220 Denain, France*
[d] *EA 4489, IMPRT, faculté de médecine Henri-Warembourg, université Lille—Nord-de-France, 59000 Lille, France*
[e] *EA 2694, université Lille—Nord-de-France, 59000 Lille, France*

Received 23 July 2015 ; received in revised form 21 November 2015; accepted 18 December 2015

KEYWORDS
Breech;
Vaginal delivery;
Cervical ripening;
Induction of labor

Summary In term breech deliveries, vaginal delivery can be safely envisioned in some conditions (related to patient selection and obstetrician experience). Very few data are currently available, however, about the possibility of inducing labor in these situations.
Objective. — To assess the effectiveness and safety of induction of labor for breech presentations.
Study design. — Retrospective comparative hospital-based study of a continuous series of term breech deliveries from 2000 to 2010. The condition of term breech newborns delivered vaginally after induction of labor was compared to that of their counterparts delivered vaginally after spontaneous labor.
Results. — During the study period, 96 women with term fetuses in breech presentations had labor induced and 501 in spontaneous labor had attempted vaginal deliveries. Compared with spontaneous labor, induction was not associated with a significantly higher rate of cesarean delivery during labor (20.8 vs 14.8%, $P = 0.14$), nor with poorer neonatal condition, defined either as moderate acidosis (pH < 7.15; 21.6 vs 19.8%, $P = 0.71$) or composite neonatal morbidity (2.1 vs 0.6%, $P = 0.16$).

* Corresponding author.
E-mail address: geraldine.bleu@gmail.com (G. Bleu).

http://dx.doi.org/10.1016/j.jgyn.2015.12.001

Please cite this article in press as: Bleu G, et al. Effectiveness and safety of induction of labor for term breech presentations. J Gynecol Obstet Biol Reprod (Paris) (2016), http://dx.doi.org/10.1016/j.jgyn.2015.12.001

Conclusion. — Our data indicate that, compared with spontaneous labor, neither cervical ripening nor oxytocin induction of labor is associated with either a poorer neonatal prognosis or an excess rate of obstetric complications in term breech births, and that the success rate of induction is satisfactory.

MOTS CLÉS
Siège ;
Voie basse ;
Déclenchement ;
Maturation cervicale ;
Induction

Résumé Dans l'accouchement par le siège à terme, un accouchement par voie basse peut être envisagé dans de bonnes conditions de sécurité, sous certaines conditions de sélection des patientes et d'expérience de l'obstétricien. Cependant, les données manquent concernant la possibilité de déclencher le travail.
But. — Évaluer l'efficacité et la sécurité du déclenchement du travail en cas de présentation du siège.
Matériels et méthodes. — Étude hospitalière rétrospective comparative d'une série continue d'accouchements en présentation du siège à terme entre 2000 et 2010. L'état des nouveau-nés a été comparé selon qu'ils étaient nés après un début de travail déclenché ou après un travail spontané.
Résultats. — Pendant la période d'étude, 96 patientes ont été déclenchées en présentation du siège à terme et 501 ont eu une tentative d'accouchement par voie basse. Par rapport à un travail spontané, le déclenchement n'était associé ni à un taux de césarienne en cours de travail significativement plus élevé (20,8 vs 14,8 %, $p = 0{,}14$), ni à une dégradation de l'état néonatal, qu'il s'agisse du risque d'acidose modérée (pH < 7,15 ; 21,6 vs 19,8 %, $p = 0{,}71$), ou du risque de morbidité néonatale composite (2,1 vs 0,6 %, $p = 0{,}16$). Par rapport à la réalisation d'une césarienne programmée en revanche, le déclenchement était associé à une augmentation significative du risque d'acidose modérée (21,6 vs 5,1, $p < 0{,}01$) mais sans augmentation du risque d'acidose sévère (1,1 vs 1,0, $p > 0{,}99$), ni élévation de la morbidité néonatale composite (2,1 % vs 0,6 %, $p = 0{,}18$).
Conclusion. — Par rapport à un travail spontané, nos données indiquent que la maturation cervicale ou l'induction du travail ne sont pas associées à une détérioration du pronostic néonatal ni à un excès de complications obstétricales, avec un taux de réussite de déclenchement satisfaisant.

Introduction

Around 3% of all term births involve fetuses in breech presentation [1]. After the publication of the Term Breech Trial (TBT) [2], cesarean rates for these deliveries increased worldwide [3,4]. Several studies and guidelines have nonetheless shown that vaginal delivery can be safely envisioned in some conditions (of patient selection and obstetrician experience) [5—13].

As induction of labor for medical reasons is now practiced in around 20% of pregnancies in countries at low perinatal risk [14], the question of inducing labor in women with a fetus in breech presentation must be considered. This practice exists in Europe and in Israel [1,7,15], but international guidelines on the topic are discordant. Some professional bodies consider that it is contraindicated [8], others specifically do not [5,11,16], and still others do not mention it in their guidelines [9,10]. In the French guidelines issued by the High Health Authority in 2008 [17] and those of the French College of Gynecologists and Obstetricians (CNGOF) [5], breech presentation is not a contraindication to the induction of labor. Nonetheless, in 2006, only 12.5% of French obstetric teams reported that they used induction frequently in this situation; 59.7% used it occasionally, and 27.8% never [1].

Objective data about cervical ripening and induction of labor by oxytocin for breech presentations are sparse: two recent series found no unfavorable outcome for either mothers or infants after induction [15,18].

The aim of our study was to assess the effectiveness and the maternal and neonatal safety of induction of labor for term breech.

Materials and methods

This is a retrospective study including all singleton breech deliveries after 37 weeks of gestation in our level 3 university reference hospital during 2000—2010. The study also excluded women with a termination of pregnancy, in utero death, or fetus with a prenatally diagnosed severe malformation that might have modified either obstetric management or neonatal condition.

Our department uses a written protocol for the practice of breech deliveries. This protocol does not state that cervical ripening or oxytocin induction [19] are contraindicated. It also sets the following conditions for planning vaginal delivery:

- comparison of the fetal biparietal diameter with maternal pelvimetry data (median conjugate—biparietal diameter

Please cite this article in press as: Bleu G, et al. Effectiveness and safety of induction of labor for term breech presentations. J Gynecol Obstet Biol Reprod (Paris) (2016), http://dx.doi.org/10.1016/j.jgyn.2015.12.001