European Journal of Obstetrics & Gynecology and Reproductive Biology 256 (2021) 211–214

Contents lists available at ScienceDirect

European Journal of Obstetrics & Gynecology and Reproductive Biology

journal homepage: www.elsevier.com/locate/ejogrb

Full length article

External cephalic version: Predictors of success and influence on caesarean rates

Susana Correia Costa[a,*], Maria Inês Raposo[b], Ana Paula Machado[a], Carla Ramalho[a,c,d], Diogo Ayres-de-Campos[e,f], Nuno Montenegro[a,c]

[a] Department of Obstetrics, Centro Hospitalar Universitário São João, Porto, Portugal
[b] Department of Obstetrics and Gynecology, Hospital Divino Espírito Santo, Ponta Delgada, Azores, Portugal
[c] Faculty of Medicine, University of Porto, Portugal
[d] Health Innovation and Investigation Institute, University of Porto, Portugal
[e] Department of Obstetrics, Centro Hospitalar Lisboa Norte, Portugal
[f] Faculty of Medicine, University of Lisbon, Portugal

ARTICLE INFO

Article history:
Received 30 July 2020
Received in revised form 5 November 2020
Accepted 11 November 2020
Available online xxx

Keywords:
External cephalic version
Cesarean rate
Breech presentation

ABSTRACT

Objective: To evaluate the success rate of external cephalic version, predictive factors for success of this maneuver and to examine how it affects mode of delivery, pregnancy and neonatal outcome rates.
Study design: Retrospective cross-sectional study performed in a tertiary care university hospital between January 2002 and June 2018. A total of 324 ECVs were performed in 321 pregnancies. Maternal and ultrasound data, procedure-related factors, birth characteristics and neonatal data were collected. Absolute and relative frequencies were used for descriptive analysis and the chi-square test for comparative analysis. Odds ratios with 95 % confidence intervals were calculated.
Results: The overall success rate of the procedure was 33,3%. Multiparity, transverse lie, unengaged breech presentation, low body mass index, soft uterus and palpable fetal head were independent risk factors for success. No statistically significant association was found with other variables. Routine use of ECV allowed a reduction in cesarean delivery rates for breech presentation, with no increase in maternal or neonatal morbidity. Operative delivery rates after successful ECV were similar to those of the general population.
Discussion and conclusion: Despite a relatively low overall success rate, routine use of ECV can result in reduced cesarean delivery rates with similar perinatal outcomes. Conveyed information on the success rate of ECV can be adapted to individual patient characteristics.

Introduction

Breech presentation at term has a prevalence of 3–4 % and is more common in nulliparous women [1,2]. Management of this condition has been the subject of intense debate among healthcare professionals, particularly after publication of the Term Breech Trial (TBT), suggesting that planned caesarean section reduces perinatal morbidity and mortality, when compared to vaginal breech birth [3]. The immediate consequence of the TBT was a rising rate of caesarean deliveries for breech presentation in many parts of the world [4–6]. Although subsequent large observational studies have questioned the conclusions of the TBT, breech presentation remains one of the most frequent indications for caesarean delivery [7,8].

External cephalic version (ECV) has been shown to decrease caesarean delivery rates for this indication by raising the number of cephalic presentations at term [1,5,9]. Eviction of the first caesarean reduces the number of iterative caesareans and the risk of surgical trauma related to uterine adhesions, bowel and bladder lesions, abnormally adherent placenta, and uterine rupture [10]. Despite the reasonable body of literature documenting ECV success rates, its contraindications and complications, in many centres there is still resistance to the use this procedure, both from obstetricians and pregnant women [11,12].

The aim of this study was to evaluate the success rate of ECV in a tertiary care university hospital, together with the resulting mode of delivery, pregnancy and neonatal outcomes of these cases. A secondary aim was to establish the predictive factors for ECV success.

* Corresponding author at: Alameda Professor Hernâni Monteiro, Centro Hospitalar Universitário de São João, Department of Obstetrics, 4200-319, Porto, Portugal.
E-mail address: susana.correia.costa@chsj.min-saude.pt (S. Correia Costa).

https://doi.org/10.1016/j.ejogrb.2020.11.037
0301-2115/