# TIME TRENDS IN EPISIOTOMY AND SEVERE PERINEAL TEARS IN PORTUGAL: A NATIONWIDE REGISTER-BASED STUDY

Cristina Teixeira<sup>1</sup>, Elsa Lorthe<sup>2</sup>, and Henrique Barros<sup>1</sup>

<sup>1</sup>EPIUnit - Instituto de Saúde Pública, Universidade do Porto, Porto, Portugal

<sup>2</sup>EPIUnit - Instituto de Saúde Pública, Universidade do Porto

April 16, 2024

## Abstract

Objective: To estimate time trends in the frequency of severe perineal tears (SPT) in Portugal and its relationship with episiotomy. Design: Nationwide register-based study by using the national inpatient database. Setting: All Portuguese public hospitals Population: All women with a singleton vaginal delivery between 2000 and 2015 Methods: Time-trend analysis using joinpoint regression models was performed to identify time trends in the prevalence of SPT and of risk factors, including episiotomy. Poisson regression models were fitted to assess the association between episiotomy and SPT. Main Outcome Measures: Annual percentage change (APC) with 95% Confidence Interval (95% CI) in the prevalence of SPT and its risk factors. Adjusted relative risk (RR) and respective 95% CI. Results: From 908,889 singleton vaginal deliveries, 20.6% were instrumental deliveries, 76.7% with episiotomy and 0.56% were complicated by SPT. SPT decreased among women with non-instrumental deliveries and no episiotomy from 2009 onwards (1.3% to 0.7%), whereas SPT kept increasing in women with episiotomy for both non-instrumental (0.1% in 2000 to 0.4% in 2015) and instrumental deliveries (0.7% in 2005 to 2.3% in 2015). Episiotomy was associated with a decrease in SPT with adjusted RR varying between 2000 and 2015 from 0.18 (95%CI:0.13-0.25) to 0.59 (95%CI:0.44-0.79) for non-instrumental deliveries and from 0.45 (95%CI:0.25-0.81) to 0.50 (95%CI:0.40-0.72) for instrumental deliveries. Conclusions: Episiotomy rate could safely further decrease as the main factor driving SPT rates seems to be an increase in awareness and reporting of SPT particularly among women who underwent an episiotomy.

# Hosted file

article - episiotomy and severe perineal laceration BJOG main text.docx available at https://authorea.com/users/738510/articles/712746-time-trends-in-episiotomy-and-severe-perineal-tears-in-portugal-a-nationwide-register-based-study

### Hosted file

Figure 1.docx available at https://authorea.com/users/738510/articles/712746-time-trends-in-episiotomy-and-severe-perineal-tears-in-portugal-a-nationwide-register-based-study

# Hosted file

Figure 2.docx available at https://authorea.com/users/738510/articles/712746-time-trends-in-episiotomy-and-severe-perineal-tears-in-portugal-a-nationwide-register-based-study

### Hosted file

Figure 3.docx available at https://authorea.com/users/738510/articles/712746-time-trends-in-episiotomy-and-severe-perineal-tears-in-portugal-a-nationwide-register-based-study