

# INCIDENCE AND RISK FACTORS FOR UMBILICAL CORD PROLAPSE WHEN AMNIOTOMY IS USED: A SWEDISH NATIONWIDE REGISTER STUDY

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## Abstract

**Objective:** This study aimed to examine incidence for umbilical cord prolapse, and to explore risk factors in labours where amniotomy is used. **Design:** Retrospective nationwide register study. **Setting:** Delivery wards in Sweden included in the Swedish Pregnancy Register. **Participants:** All births from January 2014 to June 2020, eligible participants n = 607 123. **Methods:** The main outcome, umbilical cord prolapse, was identified in the data by the International Classification of Diseases (ICD-10), diagnosis code O69.0. Multiple binary logistic regression analysis was used to identify risk factors. **Results:** Amniotomy was performed in 230 699 (38.0%) of the births, in which umbilical cord prolapses occurred in 293 cases (0.13%). Spontaneous rupture of the membranes occurred in 376 424 (62.0%), in which there were 458 cases (0.12%) of umbilical cord prolapse. Risk factors associated with umbilical cord prolapse in labours where amniotomy was used were higher parity, previous cesarean section, presence of polyhydramnios, induction of labour and non-cephalic presentation, that all increased the odds for umbilical cord prolapse. **Conclusions:** The severe complication of umbilical cord prolapse is rare in Sweden. Identified risk factors in labours where amniotomy is used were higher parity, previous cesarean section, polyhydramnios, induced labour and a baby in a non-cephalic presentation. **Funding:** Linnaeus University and LÖF; the Swedish patient insurance. The funders had no role in study design, analysis and interpretation of the data, or writing the article.

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