Abstract:

PRETERM BIRTH AND CONIZATION PRIOR TO PREGNANCY: AN ANALYSIS OF THE NATIONAL INPATIENT QUALITY SURVEY DATA IN GERMANY; 2009-2014.

Aims

Conization for the treatment of cervical intraepithelial lesion has been linked to an increased risk of preterm delivery. Valid data from Germany are lacking. Our study aimed to investigate the association between conization and the risk of preterm birth in subsequent pregnancies, using data from a German population database.

Method

We performed a retrospective cohort study on data from the German nationwide performance measurement program in healthcare quality. Women with history of conization prior to pregnancy were compared to a control group of women without. Only primiparas with singleton pregnancies were included for analysis. Outcome measures are gestational age at birth, birth weight, neonatal morbidity and perinatal mortality. Data were analyzed using univariate and multivariate statistical methods.

Results

The database included a total of 4.002.503 deliveries between 2009 and 2014. 1.573.200 could be included for analysis. 14.337 women had a history of conization. This group were more likely to be (self-) employed, single, older, had a lower body mass index and a lower mean birth weight of the babies than in the control group [mean (SD), 3.240g (± 603g) vs. 3.307g (±545g), $p < 0.0001$]. The preterm birth rate was significantly higher after conization compared to the non-exposed cohort (12,2% vs. 7,5%; Chi2 <0,0001). Conization was confirmed to be a significant risk factor for preterm delivery (odds ratio, OR 1,7; 95% CI: 1,65-1,83).

Conclusion

The data of this study are in accordance with the literature. Further analysis of the data should evaluate whether preterm delivery after conization affects the perinatal morbidity and mortality.

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