Carbon dioxide laser vaporization of uterine cervix and pregnancy

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Objective
Cervical intraepithelial neoplasia (CIN) treated with carbon dioxide (CO2) laser vaporization is associated with a certain obstetrical problems in subsequent pregnancies. There are few studies that have already published results about pregnancy outcome after cold knife incision of the uterine cervix.

Methods
Aim of the study: The purpose of the study was to detect all the women under risk for preterm delivery and birth of low weight neonates in pregnancies following CO2 laser vaporization. Methods: Patients of fertile age who underwent carbon dioxide laser vaporization of uterine cervix were hospitalized and treated at the University clinic for obstetrics and gynecology and they were properly followed in their subsequent pregnancy. We analyzed all reproductive events after the surgical treatment. Age of patients, number of pregnancies, duration of the actual pregnancy, mode of delivery and additional morbidities were documented. Risk for preterm delivery and risk for low birth weight infants were studied.

Results
A total of 50 women with singleton pregnancies after CO2 laser vaporization and 50 controls were included in the study. The statistical analyses did not find any significant differences in the rate of preterm birth, duration of pregnancy or birth weight among the groups. Mean gestational length was 39 gestational weeks in control and 38 gestational weeks in the referent group with a mean birth weight of 3320 grams in the control and 3300 grams in the referent group.

Conclusion
No relationship was found between laser vaporization and preterm birth or low birthweight. Thus carbon dioxide laser vaporization of the uterine cervix does not influence the outcome of subsequent pregnancy.