

FCP93**BETWEEN CADMIUM AND LOW BIRTH WEIGHT**

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Background: This project concerning Pb and Cd concentrations having influence on pregnancy progress and outcomes was done in cooperation with Columbia University of New York.

The area of Kosovska Mitrovica and Zvecan is well-known for its extra Pb and Cd air concentrations. These elements easily penetrate the placental membrane so the aim was the follow up of pregnant women within the population living near the lead smelter.

It has been suggested that accumulation of tobacco-derived cadmium (Cd) in the placenta is responsible for the adverse effect of cigarette smoking on low birth weight.

Methods: We chose to test this hypothesis; therefore, we studied a population of nonsmoking pregnant women who were exposed to low levels of smelter-derived Cd and group of nonexposed women.

Results: A higher mean placental Cd concentration ($p < 0.00007$) was found in the exposed women ($n=106$), compared with those who were non-exposed ($n=55$); the observed Cd concentrations were comparable to concentrations reported previously for smoking and nonsmoking women, respectively. Least squares multiple regression (controlling for potentially confounding variables) revealed no association between placental Cd and birthweight.

Conclusion: It was, therefore, concluded that the effect of smoking on birth weight was not mediated through Cd.

FCP94**EVALUATION OF THE CASES OF HYPER- AND HYPOTHYROIDISM DURING PREGNANCY REGISTERED IN THE FIVE-YEAR PERIOD**

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Background: In pregnancy, the incidence of hyperthyroidism has been estimated to be from 0.2 to 2.0% and that of hypothyroidism, about 0.3-0.7%. Hyperthyroidism during the pregnancy can have a various obstetrical outcomes: spontaneous abortion, still births and neonatal deaths, fetal/neonatal hyperthyroidism, IUGR, low birth weight infants. Hypothyroidism in pregnancy can be associated with: PIH, placenta abruptio, postpartum hemorrhage and low birth weight infants. There is a one pregnancy-specific condition, hyperemesis gravidarum, with underlying transient hyperthyroidism in more than 60% of patients, with no history of thyroid illness before pregnancy.

Methods: The analysis encompassed the cases of hyper- and hypothyroidism during pregnancy in the five years period (1997-2001) registered at the Department of Obstetrics and Gynecology in Novi Sad.

Results: During the analyzed period there were 11 cases of hyper- and 6 cases of hypothyroidism in pregnancy. The incidence is very low as there are about 6000 deliveries per year in the Department. All cases were diagnosed and treated before pregnancy. The causes were: Graves's disease in all hyperthyroid patients and Hashimoto thyroiditis and previous surgical treatment of hyperthyroidism in cases of hypothyroidism. All of patients have frequently visited the obstetrician and endocrinologist during the pregnancy. Serum hormones analyses were performed several times. Fetal condition was estimated by serial ultrasound examinations and frequent fetal heart rate testing (nonstress test). The mode of delivery depended on the obstetric indications. Blood samples of the newborn were assayed for thyroid hormones. In regard of medication four of hyperthyroid patients took propylthiouracil during the whole pregnancy and one took the same drug from 24th week of gestation because of worsening of the disease. The rest of patients were without the medication in respect of their hormonal status. On the other hand, all the hypothyroid patients were treated with levothyroxine. One of the hyperthyroid patients had the preterm delivery in the 33rd week. The newborns of the mothers with Graves disease weighted from

2200 and 2800 g (IUGR and low birth weight) to 3680 g. In the group of hypothyroid patients there were two cases of PIH and the birth weights varied from 2860 g (low birth weight) to 4050 g. In both groups, there were no newborn with hyper/hypothyroidism in the early neonatal period. It should be mentioned that the patients with hyperemesis gravidarum were much more numerous but routine control of their thyroid hormones level were not performed.

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MATERNAL MORBIDITY AFTER FORCEPS DELIVERY IN TWO PERIODS

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Objective: The aim of this study was to compare maternal morbidity after forceps delivery in two periods.

Methods: We analysed parity and maternal morbidity after forceps delivery in two periods: I (1985-1988) and II (2000-2001). Retrospective comparative study was performed. Obtained data was analysed by Student's t-test.

Results: In I period there were 483 forceps deliveries out of total 35.086 deliveries (1.38%), in II period 88 forceps deliveries out of total 13.186 deliveries (0,67%), $t=7.52$; $p<0,01$. Primiparous: I period 405 (83.85%), II 72 (81.18%) $t=0,46$; $p>0,05$.

Multiparous: I period 78 (16.15%), II 16 (18.82%) $t=-0,46$; $p>0,05$.

Maternal morbidity:

Cervical lacerations: I period 141 (29.19%), II period 25 (28.41%) $t=0.15$; $p>0,05$.

Vaginal lacerations: I period 80 (16.56%), II period 13 (14.77%) $t=0.43$; $p>0,05$.

Perineal lacerations (I/II degree): I period 19 (3.93%), II period 6 (6.82%) $t=1.02$; $p>0,05$.

Perineal lacerations (III degree): I period 5 (1.04%), II period 2 (2.27%) $t=0.75$; $p>0,05$.

Conclusion: No significant differences in parity were found. Due to the fact that forceps deliveries in both periods were performed by skilled obstetricians maternal morbidity did not differ significantly between compared periods.

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INDICATIONS FOR FORCEPS DELIVERY IN TWO PERIODS

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Objective: The aim of this study was to compare indications for forceps delivery in two periods.

Methods: Retrospective comparative study was performed. We analysed indications for forceps delivery in two periods: I (1985-1988) and II (2000-2001). Obtained data was analysed by Student's t-test.

Results: In I period there were 483 forceps deliveries out of total 35.086 deliveries (1.38%), in II period 88 forceps deliveries out of total 13.186 deliveries (0,67%), $t=7.52$; $p<0,01$. Cesarean section rate in our Institute was: I period 9.2%, II period 18.81, $t=-25.71$; $p<0,01$. Indications for forceps delivery were:

Prolonged second stage: I period 357 (73.91%), II period 61 (69.32%), $t=0.86$; $p>0,05$.

Posterior occiput position: I period 46 (9.52%), II period 15 (17.04%), $t=1.78$; $p>0,05$.

Fetal distress: I period 35 (7.25%), II period 10 (11.36%), $t=1.15$; $p>0,05$.

Maternal heart disease: I period 22 (4.55%), II period 2 (2.27%), $t=1.23$; $p>0,05$.

Preeclampsia: I period 13 (2.69%), II period 1 (1.13%), $t=1.15$; $p>0,05$.

In I period there were one diastasis of symphysis and one uterine rupture, in II period 2 placental abruptions (2,27%) as indications for forceps delivery. No maternal deaths were noted.

Conclusion: Indications in both periods were almost same, with no significant difference between periods. Forceps delivery rate was significantly lower in second period, probably due to significantly higher cesarean section rate.