Arh. farm 2022; 72: S438–S439 ***PPT-PP6***

DRUGS AFFECTING THE NEWBORN BODY WEIGHT, LENGTH AND HEAD CIRCUMFERENCE AT BIRTH

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Newborn anthropometric measures at birth are important indicators of neonatal health, infant survival and childhood morbidity (1). Our aim was to identify factors that significantly influence newborn birth weight, length, and head circumference. This was a cohort study with combined retrospective and prospective data collection conducted on pregnant women whose pregnancy was monitored at the Clinic for Gynecology and Obstetrics at University Clinical Centre Kragujevac, Serbia. The influence of potential factors on birth weight, length, and head circumference was evaluated by multiple linear regression analysis. The study included 320 pregnant women with an average age of 30.35±5.50 years and 332 newborns (12 pairs of twins). We identified four factors with a significant negative effect on newborn birth weight, among which were use of methyldopa (B= –145.561;p=0.033) and corticosteroids during pregnancy (B= –287.921;p=0.001). Negative effect on newborn head circumference at birth inter alia had use of corticosteroids (B= –0.961;p=0.003) and antibiotics during pregnancy (B= –0.547;p=0.009), while the use of corticosteroids also showed a significant negative effect on birth length in the final multiple linear regression model (B= –1.818;p=0.000). The summary of product characteristics of corticosteroids warns that they may increase the risk of intra-uterine growth retardation when administered for prolonged periods or repeatedly during pregnancy (2), while the effects of methyldopa and antibiotics on fetal development are not well known. Clinicians should pay special attention to pregnant women who use corticosteroids, methyldopa and antibiotics during pregnancy in order to prevent low anthropometric measures of newborns at birth.

References

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LEKOVI KOJI UTIČU NA TELESNU TEŽINU, DUŽINU I OBIM GLAVE NOVOROĐENČETA NA POROĐAJU

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Antropometrijske mere novorođenčadi na rođenju su važni pokazatelji zdravlja novorođenčadi, preživljavanja odojčadi i morbiditeta u detinjstvu (1). Naš cilj je bio da identifikujemo faktore koji značajno utiču na porođajnu težinu, dužinu i obim glave novorođenčeta na porođaju. Ovo je bila kohortna studija sa kombinovanim retrospektivnim i prospektivnim prikupljanjem podataka sprovedena na trudnicama čija je trudnoća praćena na Klinici za ginekologiju i akušerstvo Univerzitetskog kliničkog centra Kragujevac, Srbija. Uticaj potencijalnih faktora na porođajnu težinu, dužinu i obim glave procenjen je primenom metoda multiple linearne regresije. Istraživanjem je obuhvaćeno 320 trudnica prosečne starosti 30,35±5,50 godina i 332 novorođenčadi (12 parova blizanaca). Identifikovali smo četiri faktora sa značajnim negativnim uticajem na porođajnu težinu, među kojima su bili upotreba metildope (B= –145,561;p=0,033) i kortikosteroida tokom trudnoće (B= –287,921;p=0,001). Negativan uticaj na obim glave novorođenčeta na porođaju između ostalog je imala primena kortikosteroida (B= –0,961;p=0,003) i antibiotika tokom trudnoće (B= –0,547;p=0,009), dok je upotreba kortikosteroida takođe pokazala značajan negativan efekat na dužinu novorođenčeta na rođenju u konačnom modelu multiple linearne regresije (B= –1,818;p=0,000). Sažetak karakteristika preparata kortikosteroida upozorava da ovi lekovi mogu povećati rizik od intrauterinog zastoja u rastu ploda kada se oni primenjuju u dužem periodu ili više puta tokom trudnoće (2), dok efekti metildope i antibiotika na razvoj fetusa nisu dobro poznati. Kliničari treba da obrate posebnu pažnju na trudnice koje tokom trudnoće koriste kortikosteroide, metildopu i antibiotike kako bi se sprečila pojava malih antropometrijskih mera novorođenčadi na rođenju.

Literatura

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