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17-Hydroxyprogesterone Caproate Does Not Prevent Preterm Birth in Women with a Twin Pregnancy and a Prior Singleton Spontaneous Preterm Birth

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SI CTR Abstract

17-hydroxyprogesterone caproate does not prevent preterm birth in women with a twin pregnancy and a prior singleton spontaneous preterm birth

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INTRODUCTION: Prior spontaneous preterm birth (sPTB) is a risk factor for recurrent sPTB. Weekly 17-hydroxyprogesterone caproate (17P) is used to prevent sPTB in singletons, but there is insufficient evidence on its benefit in twin pregnancies.

OBJECTIVE: We hypothesized that 17P weekly injections would reduce the likelihood of sPTB in women carrying a twin pregnancy with a history of singleton sPTB.

METHODS: We performed a retrospective case control study of women with a twin gestation and prior singleton sPTB between 2005 and 2016. The study group consisted of women with a twin gestation that received weekly 17P starting at 16 to 20 weeks versus those who did not. The primary outcome was twin sPTB <34 weeks. The secondary outcome was a composite neonatal morbidity prior to hospital discharge.

RESULTS: Of 79 patients included, 27 women received weekly 17P and 52 did not. There were no statistically significant differences in maternal demographics (except maternal age) or in the rate of sPTB <34 weeks between cases and controls. There was no statistically significant difference in the rate of sPTB <32 and <24 weeks, mean birth weight, or mode of delivery between study and control groups. Composite neonatal morbidity occurred in 20 neonates (74%) in the study group and in 41 control pregnancies (79%).

DISCUSSION: Weekly 17P injections do not appear to decrease the incidence of sPTB or neonatal complications in twin pregnancies with a history of prior singleton sPTB. This study will therefore guide future patient management on this common obstetric dilemma.