Administration of steroid to extremely preterm infants not associated with adverse effects on neurod

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The administration of low-dose hydrocortisone to extremely preterm infants was not associated with any adverse effects on neurodevelopmental outcomes at 2 years of age, according to a study published by *JAMA*.

Early low-dose hydrocortisone treatment in very preterm infants has been reported to improve survival without bronchopulmonary dysplasia (a form of chronic lung disease), but its safety with regard to neurodevelopment remains to be assessed. Olivier Baud, M.D., Ph.D., of Robert Debre Children's Hospital, Paris, and colleagues analyzed data from the PREMILOC trial, in which infants born between 24 0/7 weeks and 27 6/7 weeks of gestation and before 24 hours of postnatal age were randomly assigned to receive either placebo or low-dose hydrocortisone injection.

Of neonates screened, 523 were assigned to hydrocortisone (n = 256) or placebo (n = 267) and 406 survived to 2 years of age. A total of 379 patients (93 percent) were evaluated at a median corrected age of 22 months. The researchers found no statistically significant difference in patients without neurodevelopmental impairment (73 percent in the hydrocortisone group vs 70 percent in the placebo group), with mild neurodevelopmental impairment (20 percent in the hydrocortisone group vs 18 percent in the placebo group), or with moderate to severe neurodevelopmental impairment (7 percent in the hydrocortisone group

vs 11 percent in the placebo group). The incidence of cerebral palsy or other major neurological impairments was not significantly different between groups.

"Further randomized studies are needed to provide definitive assessment of the neurodevelopmental safety of hydrocortisone in extremely preterm infants," the authors write.

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