Chorioamnionitis and risk of long-term neurodevelopmental disorders in the offspring: a response

We want to thank Drs Li and Chen for their interest in our work. Our study demonstrated that chorioamnionitis increases the risk of neurodevelopmental disorders, particularly cerebral palsy (CP), autism, attention-deficit/hyperactivity disorder, and intellectual disability. Regarding the distribution of CP cases by gestational age, in our study, data on gestational age were available in 92 cases of CP exposed to chorioamnionitis, where 78 (84.78%) were born preterm and 14 (15.22%) were born at term. Among 4659 cases of CP without chorioamnionitis, 3349 infants (72.07%) were born at term, and 1298 infants (27.93%) were born preterm. Therefore, as we showed in our causal mediation analyses, chorioamnionitis leads to preterm birth, and preterm birth increases the risk of neurodevelopmental impairment (ie, CP; Figure).

We agree that the overall number of cases with neurodevelopmental impairments associated with chorioamnionitis are relatively low. However, neurodevelopmental disorders, such as CP and autism, result in substantial lifetime disability for children and their families and shorten life expectancy. Our study underlined the role of an in utero infection and the chain of events leading to neurodevelopmental disorders. Such knowledge is a prerequisite for primary prevention.

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FIGURE
Simplified DAG of the relation between chorioamnionitis and neurodevelopmental disorders with preterm delivery as the mediator