Cox2 inhibition improves preeclampsia symptoms in a mouse model

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Preeclampsia is characterized by elevated blood pressure in the second half of pregnancy and impaired blood flow to the placenta, which increases the risk of premature birth and pregnancy complications.

In this issue of *JCI Insight*, Robin Davisson and colleagues use a mouse model that spontaneously develops cardinal features of preeclampsia to explore its underlying causes. They show that even before preeclampsic symptoms develop, embryos have implantation defects that are associated with increased levels of the pro-inflammatory molecule cyclooxygenase 2 (Cox2).

Treatment of mice with the Cox2 inhibitor celecoxib prior to implantation resulted in more typical implantation features, improved fetal growth, and reduced gestational hypertension.

These findings support further exploration of Cox2 inhibition early in pregnancy as an approach to prevent preeclampsia.

More information: Jenny L. Sones et al. Decidual Cox2 inhibition improves fetal and maternal outcomes in a preeclampsia-like mouse model, *JCI Insight* (2016). DOI: 10.1172/jci.insight.75351

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