

Impact of Antenatal Betamethasone Exposure on Preterm Diaphragm Integrity

Research overview

Steroids given to the mother before birth to help mature the baby's lungs may weaken the breathing muscle (the diaphragm), contributing to development of respiratory failure after birth. We investigated how maternal steroid treatment changed fetal diaphragm muscle development, and led to impaired function of the breathing muscle.

We found that the cell signalling associated with protein synthesis was mainly damaged. The findings provided a theoretical basis for future translational clinical studies investigating therapeutic targets to preserve respiratory muscle function.



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