

New groundbreaking treatment for oxygen-deprived newborns

August 11 2009

Until now immediate cooling of the newborn infant was the only treatment that could possibly prevent brain damage following oxygen deprivation during delivery. New research findings from the Sahlgrenska Academy at the University of Gothenburg and Sahlgrenska University Hospital, Sweden, in collaboration with Zhengzhou University in China, open up the possibility of a new and effective treatment that can be started as late as two days after birth.

This new treatment involves newborn infants being given a two-week course of injections of erythropoietin, a hormone that stimulates the formation of red blood cells.

"For the first time we can demonstrate that it is possible to influence the brain damage occurring as a result of oxygen deprivation during delivery considerably later than the six-hour window of opportunity for treating with cooling," says Klas Blomgren, professor of paediatrics at the Sahlgrenska Academy and specialist at Queen Silvia Children's Hospital.

The research findings, which are presented in the latest issue of the highly-respected medical journal *Pediatrics*, are the result of cooperation between Swedish, Austrian and Chinese researchers. The study treated just over 150 term newborn infants, half of whom were given small doses of erythropoietin every other day. Once the [children](#) reached the age of eighteen months, their neurological condition was assessed.

"Only half as many of the children treated with erythropoietin had

developed a severe neurological [functional disability](#) or had died of their injuries. Thus the [hormone treatment](#) improves the prognosis considerably in the longer perspective," says Blomgren.

The children in the study had suffered moderate or severe hypoxic-ischemic encephalopathy (HIE) at birth, but it was only children with moderate HIE that were helped by this hormone treatment.

"We believe that erythropoietin has a regenerative and stimulating effect on recovery and on [brain development](#) following the injury. This appears to be a safe treatment, almost without side effects, and it is also cheaper and technically simpler to administer in comparison with cooling. This means that the treatment can be given a wide distribution, and can be used even in developing countries," says Blomgren.

Source: University of Gothenburg ([news](#) : [web](#))

Citation: New groundbreaking treatment for oxygen-deprived newborns (2009, August 11) retrieved 28 April 2024 from <https://medicalxpress.com/news/2009-08-groundbreaking-treatment-oxygen-deprived-newborns.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--