

Recognising low blood sugars could help prevent brain damage in newborn babies

June 12 2013

(Medical Xpress)—Researchers from The University of Manchester studying a rare and potentially lethal childhood disease – which is the clinical opposite of diabetes - have made an important discovery.

The team has found newborn babies with transient (also known as short-term) congenital hyperinsulinism (CHI) are at risk of developing, long-term disability or brain damage due to low blood sugars.

Previously it was thought only babies with the most severe form, known as persistent CHI, were at risk of brain damage. The study, published in the journal *Frontiers in Endocrinology*, will now inform paediatric practice.

CHI is a disease which affects newborn babies where their bodies produce far too much insulin and as a result their blood sugars are very low. It was already known babies born with the persistent form of CHI were at risk of brain damage and [developmental delay](#) but it was always believed that the transient form of CHI was less severe and did not carry the same risks.

Dr Karen Cosgrove, from the University's Faculty of Life Sciences who helped to carry out the study, said: "Our new research proves it is important for all babies with CHI to be treated promptly to prevent low blood sugars occurring."

Researchers from the University's Faculty of Life Sciences and Faculty

of Medical and Human Sciences along with consultants from the Royal Manchester Children's Hospital part of Central Manchester University Hospitals NHS Foundation Trust teamed up for the research. Royal Manchester Children's Hospital is the base for the Northern Congenital [Hyperinsulinism](#) (NORCHI) service which is a highly specialised service for the treatment of this condition.

The study found that a third of children have evidence of brain damage from low blood sugars occurring at an early age.

Professor Peter Clayton, Professor of Child Health and Paediatric Endocrinology, said: "Based on these findings, the team recommends that any baby with CHI, whether they turn out to have transient or persistent CHI, should have immediate and sustained treatment of low blood sugar to prevent long-term disability."

Doctor Indi Banerjee, Consultant in Paediatric Endocrinology at Royal Manchester Children's Hospital and clinical lead for NORCHI, said: "It has long been recognised that low blood sugars in these babies can cause [brain damage](#). This research shows the damage happens even in children with the milder version of the disease, where low sugars improve after a few days. The damage to the developing brain in these children can be prevented by promptly recognising and correcting the low blood sugars."

More information: www.frontiersin.org/Journal/Abstract/389/fendo.2013.00060

Provided by University of Manchester

Citation: Recognising low blood sugars could help prevent brain damage in newborn babies (2013, June 12) retrieved 26 April 2024 from

<https://medicalxpress.com/news/2013-06-recognising-blood-sugars-brain-newborn.html>

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.