Brain damaged boy shows 'remarkable' improvement after experimental stem cell procedure

RANDI DRUZIN, NATIONAL POST 11.03.2016 |



Stephen Pankratz, Kim Kucher and their son Jack in August.

When he was born at Mount Sinai Hospital, Jack was not breathing. Doctors whisked him away from his mother and started efforts to resuscitate him. They managed to save his life but soon had to deliver some bad news to his parents, Stephen Pankratz and Kim Kucher.

Their son had Hypoxic Ischemic Encephalopathy (HIE), brain damage caused by lack of oxygen to the brain and other organs compounded by low blood flow to vital organs. Jack would likely suffer extensive cognitive and physical problems.

Heartbroken, the Oakville, Ont., couple contacted Toronto-based Create Cord Blood Bank, where they had stored blood and tissue stem cells from Jack's umbilical cord. After a series of meetings with the cord blood bank laboratory director, Dr. Ayub Lulat, and neonatal specialists at the Hospital for Sick Children, the specialists agreed to perform an experimental procedure.

Just imagine the possibilities for future treatment

Just 12 days old, Jack was infused with his own stem cells, becoming the youngest person ever to undergo the therapy in Canada and the first in the country to be treated for HIE with stem cells. He may turn out to be the first of many. In scientific and medical circles, stem cell experts are predicting the dawn of a new era in the treatment of HIE, autism and other brain disorders.

Just days after the transplant, Jack was free of multiple intravenous lines for the first time and was drinking from a bottle while cradled in his mother's arms. "That was the day we *finally* got to meet our son," says Kim.

Jack, who celebrated his second birthday this past summer, is now thriving. He has cerebral palsy and faces challenges ahead, but his development has far surpassed doctors' expectations. He is much more alert and dexterous than expected given the extent of his brain damage at birth. Kim predicts his next MRI will reflect that change. "We think the stem cell transplant has played a role and is continuing to play a role in his progress."

Jack's neonatologist echoes that opinion. "Based on descriptions that I have been given by his parents and the physicians who treated Jack at birth, I would have expected him to be much more severely

"The early research results coming from Duke University indicate that early transfusion of cord stem cells is effective," adds Pape. "The clinical description of Jack's improvement over the 24 hours after the transplant was remarkable. It certainly seemed to have a major clinical effect."

Kim and Steve are so passionate about the benefits of banking cord blood, they have shared their story in a video posted to Vimeo and Steve has discussed it at various speaking engagements.

"We know that the research is still ongoing, but we believe the cord blood stem cells helped our son and we think it could do the same for other kids. Just imagine the possibilities for future treatment," says Kim.

Of course, most of the couple's energy is focused on their son. He's a happy, energetic little boy who loves playing on the swing set and bursting the bubbles his mother blows for him. "I can't tell you how much joy he brings us," says Kim, "and how much hope we have for his future."

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Kelly Daniell · Works at CryoSave Arabia

What an amazing story! Best of luck to this beautiful boy and family . Stem cells really are the future of medicine...

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