

Hepatic Diseases Treated With Stem Cells From Umbilical Cord05 Jul 2008 [Click to Print](#)

Scientists of the University of Granada, in collaboration with the University of Leon, have confirmed that stem cells from human umbilical cord blood can be an appropriate therapy for the treatment of hepatic diseases such as hepatitis, and therefore mean an effective alternative to bone marrow. According to a scientific paper which will be shortly published in the renowned journal *Cell Transplantation*, human umbilical cord blood cells (HUCBCs) can be useful for hepatic regenerative medicine, as they can nest in the liver after carrying out a human-to-rat xenotransplant.

This work, carried out by Ana I. Álvarez-Mercado, María J. Sáez-Lara, María V. García-Mediavilla, Sonia Sánchez-Campos, Francisco Abadía, María Cabello-Donayre, Ángel Gil, Javier González-Gallego and Luis Fontana, did research into the regenerative potential of HUCBCs cells using a xenotransplant model from human to rat in which HUCBCs were injected through the hepatic portal vein of rats with hepatitis caused by D-galactosamine.

Success in rats

The scientists explain that the cell transplant carried out in rats caused an improvement both in the histological damage and in the hepatic function, as proved by the enzymatic activities of alanine transaminase, alkaline phosphatase, gama-glutamyl-transpherase and lactate dehydrogenase, as well as the concentrations of total and direct bilirubin. The present treatment for terminal hepatic failure consists of a liver transplant. However this method is limited due to the lack of donor organs. In addition, there is not at present a specific treatment for the fibrosis caused by many hepatic diseases. The development of such alternatives is therefore an essential objective for present research to improve suffering in many patients.

Article adapted by Medical News Today from original press release.

Note: video in <http://es.youtube.com/watch?v=uEzdKwym3CI>

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