

Liver disease 'bends' cure hope

A treatment for divers suffering from the bends could be used to help cure alcoholic liver disease.

Edinburgh University scientists are to study whether Hyperbaric Oxygen Therapy (HBOT) can improve liver function and stimulate bone marrow stem cells.

HBOT involves breathing pure oxygen to higher than atmospheric pressures in an enclosed chamber.



The trials will take place inside a chamber at Castle Craig Hospital

The trial will take place in a purpose-built chamber at Castle Craig Hospital in the Scottish Borders.

Participants in the study will have a total of 20 two-hour sessions of hyperbaric oxygen. Blood samples taken from the volunteers both before and after the sessions will then be compared.

A spokeswoman for Castle Craig said HBOT has been shown to cause mobilisation of bone marrow stem cells into the blood stream in healthy volunteers and patients who have received radio therapy for cancer.

Additional data has also shown that patients with alcoholic hepatitis who survive tend to have larger stem cell counts within the blood than those who go on to die.

There are several reports of patients with chronic liver disease experiencing an improvement in liver functioning after infusion of their own bone marrow stem cells, the university said, but unfortunately current methods of obtaining bone marrow stem cells for infusion are imperfect and can be painful and unpleasant with the risk of complications.

Currently the only "curative" treatment for cirrhosis of the liver is transplantation, but due to donor shortages and the implications of taking life long anti-rejection drugs, this is not available to the majority of patients.

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Edinburgh University

Approved trials

Professor Peter Hayes of the university's Hepatology department and the chief investigator of the trial, said: "Most ways of increasing stem cells are very complicated. The beauty of this approach is its simplicity. We have to do the study first before getting carried away."

Peter McCann, chairman of Castle Craig Hospital, added: "We are committed to helping patients, not only with their addictive disease, but also with their inevitable medical complications, and we hope that hyperbaric oxygenation will assist in this respect."

Approved trials are also taking place in the US, where researchers are examining the effects of HBOT in Aids and HIV, post traumatic stress disorder, autism, cerebral palsy and stroke cases.

Divers can suffer from the bends - or decompression sickness - if they ascend too quickly from a dive or do not carry out decompression stops after a lengthy or deep dive.

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