Medical Xpress

Study of bone marrow stem cells in multiple sclerosis

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A new pilot clinical trial to test bone marrow stem cell therapy with a small group of patients with multiple sclerosis has started at Frenchay Hospital. The aim of the trial, conducted by the University of Bristol and North Bristol NHS Trust, is to find out what effects, good or bad, it has on patients with MS, and their disability.

Bone marrow is known to contain stem cells capable of replacing cells in many types of tissues and organs - and so is of great interest to those working to develop new treatments for many diseases, including those affecting the nervous system.

The potential of such cells to aid repair in multiple sclerosis has been examined in laboratory studies in Bristol and elsewhere but, until now, patients have not been treated in this way.

Neil Scolding, Professor of Clinical Neurosciences for North Bristol NHS Trust and the University of Bristol is leading the trial.

He said: “We believe this form of adult stem cell treatment, carried out in collaboration with colleagues in the Bone Marrow Transplant Unit at the BRI, will be safe and well-tolerated but, because patients with MS have never had this treatment before, safety has to be proven before any further studies of larger numbers of patients can take place.

“We will therefore be monitoring this small number of patients extremely carefully over the next 9-12 months. Provided, as is

envisaged, we do not find serious adverse effects, we hope to raise the funds to undertake a larger study to examine the effectiveness of such treatment in MS."

What does this study involve?

Patients meeting the entry criteria were assessed in the Neurology department and the Burden Centre at Frenchay Hospital to determine general fitness and degree of disability from MS.

They also have various types of brain scan, at Frenchay and also at The Hammersmith Hospital in London. Then, at the Bone Marrow Transplant Unit at the BRI, they undergo bone marrow collection under a short general anaesthetic.

The marrow is processed and then delivered back to the patient later the same day via a vein in the arm.

Over the following weeks and months, a range of various monitoring tests and scans at Frenchay and in London are then carried out.

Source: University of Bristol

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