

A simple therapy for brain injury

Severe brain injury due to blunt force trauma could be reduced by application of a simple polymer, Polyethylene glycol or PEG, mixed in sterile water and injected into the blood stream – as reported in BioMed Central's *Journal of Biological Engineering*.

Andrew Koob and Richard Borgens from Purdue University, Indiana, performed experiments in rats which showed that PEG was effective in limiting damage if administered within four hours after the head injury. However, if treatment was delayed for a further two hours, the beneficial effects were lost. During the experiments, rats were injured with a falling weight and then PEG was administered fifteen minutes, two hours, four hours or six hours later. The authors then carried out a series of behavioural tests on the rats to determine the effectiveness of the PEG treatment.

According to Borgens "These data suggest that PEG may be clinically useful to victims of traumatic brain injury if delivered as rapidly as possible after an injury". Such a treatment could feasibly be carried out at the scene of an accident where PEG could be delivered as a component of IV fluids thus reducing long term brain injury.

Source: BioMed Central

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