

Hyperbaric Treatment For Autism Reports Significant Clinical Improvements

Science Daily (Mar. 16, 2009) — Hyperbaric treatment for children with autism has reportedly led to improvements in the condition, though previous studies were uncontrolled. Now, a new study is the first controlled trial to report clinical improvements.

Hyperbaric therapy traditionally involves inhaling up to 100% oxygen at a pressure greater than 1 atmosphere (atm) in a pressurized chamber. In the first randomized, controlled, double-blind multicenter trial, Dan Rossignol and colleagues, from six centers in the USA, studied 62 children, aged 2-7 years, to assess the efficacy of hyperbaric treatment in children with autism.

The children were randomly assigned to either 40 hours of hyperbaric treatment at 1.3 atm and 24% oxygen (treatment group) or slightly pressurized room air at 1.03 atm and 21% oxygen (non-treatment group). Clinical outcomes were evaluated by three different scales: the Clinical Global Impression (CGI) scale, the Aberrant Behavior Checklist (ABC), and the Autism Treatment Evaluation Checklist (ATEC).

The study found that children with autism in the treatment group had significant improvements in overall functioning, receptive language, social interaction, eye contact, and sensory/cognitive awareness compared to children in the non-treatment group.

Rossignol wrote "Hyperbaric treatment is a safe treatment modality at 1.3 atm and ... appears to be a promising treatment for children with autism".

Journal reference:

Daniel A Rossignol, Lanier W Rossignol, Scott Smith, Cindy Schneider, Sally Logerquist, Anju Usman, Jim Neubrandner, Eric M Madren, Gregg Hintz, Barry Grushkin and Elizabeth A Mumper. Hyperbaric treatment for children with autism: a multicenter, randomized, double-blind, controlled trial. BMC Pediatrics, (in press)