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Hyperbaric Oxygen Helpful in Acute Carbon Monoxide Poisoning

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Oct. 3, 2002 — A randomized trial reported in the Oct. 3 issue of the *New England Journal of Medicine* was stopped early after interim analysis showed clear benefit from the use of hyperbaric oxygen for acute carbon monoxide (CO) poisoning. Three treatments in a 24-hour period appeared to reduce the risk of cognitive sequelae at six weeks and at 12 months.

"Our findings suggest that prevention of cognitive sequelae in one patient assessed six weeks after acute CO poisoning requires hyperbaric oxygen treatment of only five patients," write Lindell K. Weaver, MD, and colleagues from the University of Utah in Salt Lake City.

After the third of four scheduled interim analyses, there were 76 patients in the group treated with three hyperbaric oxygen sessions, and 76 in the group treated with one normobaric oxygen session plus two sessions of exposure to normobaric room air. Investigators stopped the trial because cognitive sequelae were less frequent in the hyperbaric oxygen group (25.0% vs. 46.1%; $P=.007$), even after adjustment for cerebellar dysfunction and for stratification variables. Intention-to-treat analysis revealed that cognitive sequelae continued to be less frequent in the hyperbaric oxygen group at 12 months.

"Neither hyperbaric oxygen nor any other current therapy can be expected to prevent cognitive sequelae due to cellular injuries sustained at the time of exposure," Stephen R. Thom, MD, PhD, from the University of Pennsylvania in Philadelphia, writes in an accompanying editorial. "One might hope that the current study will inspire greater interest in the scientific investigation of hyperbaric oxygen therapy."

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Reviewed by Gary D. Vugin, MD
