

## DC On-Line (Chiropractic Research)

Brian Sutton, DC

### Hyperbaric Treatment for Spinal Injuries

High pressure oxygen treatment, similar to that used to treat divers suffering from "the bends," has value in many types of wound healing including spinal injuries, according to a Scottish researcher.<sup>1</sup> Hyperbaric treatment forces extra oxygen into the bloodstream to help areas that have a compromised circulation, such as bruised nervous tissue after a spinal injury. It may be useful in preventing paralysis and brain damage, according to recent research. This doctor says the treatment is underutilized, mostly because of a lack of available equipment and physicians trained in the procedure.<sup>2</sup>

1. Dr. Philip James of the University of Dundee.
2. Presented to a meeting of the Space and Underwater Research Group (of the World Federation of Neurology) in May 1998, in Washington, D.C.

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### Resistant Salmonella

Health officials are becoming increasingly alarmed over a strain of salmonella that is both harder to treat medically and is also more deadly than the previously seen form of the bacteria blamed for a large percentage of food poisoning. The CDC estimates that up to 340,000 infections with this organism occur each year in the United States. The germ is immune to ampicillin, chloramphenicol, streptomycin, sulfonamides and tetracycline.<sup>3</sup>

3. *NEJM*, May 7, 1998.

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### Low-Salt Diet Gets Low Marks

A new analysis of 114 research papers concludes that there is no evidence to recommend a low-salt diet for the vast majority of people. The *Journal of the American Medical Association*<sup>4</sup> reports that, contrary to some U.S. recommendations, persons younger than 45 and those older but with normal blood pressure obtain no benefit from restricting the salt in their diet. In fact, some evidence suggests that such action may be harmful. Lowering one's salt intake appears to raise LDL cholesterol levels, according to the authors.

4. *JAMA*, May 5, 1998.

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### Permanent Sleep Prescription

Researchers studying the effects of prescription sleeping pills report that the medications seem to increase the risk of death. Persons who take one every night are 30 percent more likely to die within six years than those who don't use them. Even a less frequent use seems to translate into some additional risk.<sup>5</sup>

5. United Press, reporting on the research of Dr. Daniel Kripke of the University of California, San Diego.

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#### Exercise against Alzheimer's

Researchers reported recently to the American Academy of Neurology that regular exercise seems to offer a protective effect against Alzheimer's disease. Persons who habitually exercised throughout their life were only one third as likely to develop the condition, compared to those with more sedentary lifestyles. The study looked at the exercise history of 373 elderly adults, 126 of whom suffered from Alzheimer's disease. Exercise consisted of such leisure activities as biking, golfing, skating, tennis, or swimming. Exercise in the course of one's line of work did not seem to exhibit much, if any, benefit.<sup>6</sup>

6. Dr. Robert Friedland of Case Western Reserve University, Cleveland, reporting to the May 1 meeting of the AAN in Minneapolis.

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#### Rock Your Blues Away

A small study of Alzheimer's patients found that about half of the participants were able to combat depression and anxiety by using a low-tech therapeutic device: a rocking chair. The benefits were seen in those that spent 80 minutes or more per day rocking. Observers report noticeable changes that included lessening of anxiety symptoms such as despair, restlessness, tight lips, and pinched eyes. Even the very frail patients seemed to be able to participate and enjoy the therapy.<sup>7</sup>

7. United Press, reporting on work by Nancy Watson et al. Presented to the April 25, 1998, meeting of the Eastern Nursing Research Society in Rochester, N.Y.

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#### Roundworms for Allergy Symptoms

A Japanese researcher reports that he has extracted a substance from an intestinal parasite that appears to subdue hay fever, asthma, and other allergic reactions. He was prompted to investigate roundworms after a stay in Borneo, where he noticed a striking absence of allergy sufferers. Roundworm infestation is apparently very high there. German researchers later noted that citizens living in areas of Germany showing a high incidence of roundworm have about one third the allergy problems of the rest of the country.

The active substance, an antihistamine, appears in the worm's excrement, hence its name; excretion secretion component (ESC). One wonders if ESC doesn't improve the roundworm's chances of survival while in the host, though I know of no studies that have looked into that question. The researcher is turning the excrement into a medical treatment, but says it also has the

unfortunate side effect of rendering the body more susceptible to cancer.<sup>8</sup>

8. United Press, April 23, 1998, reporting on the work of Koichiro Fujita of Tokyo Medical and Dental University.

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### Therapeutic Touch Successes Discredited by Fourth-Grader

If you have been striving to have a scientific paper accepted by a prestigious journal, but worried that you just don't have the expertise or scientific background to make the grade, take heart! Consider the case of a nine-year old child who recently published her fourth-grade science fair project in none other than the Journal of the American Medical Association.

Emily Rosa of Loveland, Colorado seems to have what it takes. In this case, it would appear to be a conclusion that slams therapeutic touch practitioners. Emily designed and conducted an experiment (with some help from her mother, a member of the Questionable Nurse Practices Task Force, National Council Against Health Fraud Inc.) that attempted to gauge a practitioner's ability to sense the "human energy field" associated with therapeutic touch. She constructed a cardboard barrier with cutouts for the practitioners' arms. Then she placed her hand within 10 centimeters of the TT practitioner's left or right hand, asking the subject to identify which hand she was near. The proper response was given slightly less than half the time.

Some time after the project was completed, Stephen Barrett (of Quackwatch, Inc.) encouraged the Rosas to submit it to JAMA. He assisted with writing and background, producing a very scientific-looking paper with over 100 references. Despite therapeutic touch's widespread acceptance, certifications, and apparent successes, this paper concludes that based on the apparent failure of these subjects to accurately locate a human energy field, "TT claims are groundless" and that "further use of TT by health professionals is unjustified."<sup>9</sup> The journal published the article, appropriately enough, in the April 1st issue this year.

9. JAMA 1998;279:1005-1010.

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### Medicines Kill 100,000 U.S. Citizens Each Year

Now for some real scientific medicine. A study in the *Journal of the American Medical Association*<sup>10</sup> suggests that adverse reactions from properly prescribed(?) drugs are among the top causes of death in the United States each year. The authors estimate that more than two million adverse drug reactions (ADRs) occur yearly, 106,000 of which result in death. In 1994, they say, this would account for 4.6 percent of all recorded deaths, just behind heart disease, cancer and stroke. Deaths from adverse drug reactions therefore were ahead of pulmonary disease, accidents, pneumonia and diabetes.

This study only counted deaths from drugs prescribed in a hospital setting. If you were to combine these results from a recent study (see "Hospital Infections Rising" in last month's column) that found 90,000 deaths per year from hospital-induced infections, one could easily place hospitals as the third leading cause of death in the U.S., ahead of strokes by about 45,000. The researchers suggest that deaths from ADRs have not changed much in the past 32 years. I'll let you do the math.

10. *JAMA* 1998;279:1200-1205.

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#### Hospital Intern Survey

A recent survey of medical interns published in *JAMA*<sup>11</sup> was mainly concerned with the satisfaction with their internship experience, but it also yields what some might consider much more interesting data. Of the more than 1,200 interns questioned, 70 percent reported seeing mistreatment of patients by other residents; 45 percent observed falsification of medical records; and 70 percent said they were aware of colleagues practicing while in an impaired state (about half the impairments were due to sleep deprivation).

11. *JAMA* 1998;279:1194-1199.

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#### Acetaminophen Syrup Kills 88 Children in Haiti

An "epidemic" of acute renal failure that killed 88 children in Haiti during 1995 and 1996 has been traced to diethylene glycol (DEG) in an acetaminophen elixir.<sup>12</sup> The poison was present in glycerin that was used in the local manufacturing process. DEG contamination was first noticed about 60 years ago in the United States when 105 people died from tainted medication. Since then, similar outbreaks have occurred in Argentina, Bangladesh, Spain, Nigeria and South Africa. Experts expect similar incidents to continue until stricter controls are instituted. An editorialist in *JAMA* laments, "There are no new public health lessons from the Haitian tragedy."<sup>13</sup>

12. *JAMA* 1998;279:1215-1216.

13. Dr. Alan Woolf of Children's Hospital in Boston, Massachusetts.

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#### Children's Medication May Encourage Illicit Drug Abuse

A researcher from Brookhaven National Laboratory in Upton, New York<sup>14</sup> is raising concerns about methylphenidate, the active ingredient in Ritalin. She says that the drug has properties very similar to cocaine, even possessing the ability to alleviate cocaine cravings. Up to 30 percent of cocaine addicts also take Ritalin, according to her 1995 study.<sup>15</sup> Other research<sup>16</sup> suggests that Ritalin users are three times as likely to develop a taste for cocaine as adults, and take up smoking more frequently. However, at least one psychiatrist pooh-poohs this data. He says, "My theory is that stimulant use allows kids to be more successful and therefore they develop fewer antisocial behaviors, so it's less likely they'll become drug addicts."<sup>17</sup>

14. Nora Volkow, director of nuclear medicine.

15. *New Scientist*, April 16, 1998.

16. By Susan Schenk of Texas A&M University in College Station and Nadine Lambert of the University of California at Berkeley; publication is expected in *New Scientist* this October.

17. *Reuter*, April 16, 1998, citing a *New Scientist* quote of Alan Zametkin of the National Institute of Mental Health.

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