

ECOLOGICAL HEALING AND THE WEB OF LIFE

| By Joel Kreisberg, DC |

For thousands of years, the Parsi people of India have practiced a form of “sky” burial in which the dead are placed high atop a sacred Tower of Silence. This form of burial reflects their basic belief that neither the living nor the earth should ever be contaminated by the dead. Neither earth, water, nor fire ever touch the dead and thus remain pure. This particular form of burial, as with many ancient religious practices, also has real public health benefits. As Mark Twain wrote in 1897, sky burials “disseminate no corruption, no impurities, of any sort, no disease-germs; that no wrap, no garment which has touched the dead is allowed to touch the living afterward; that from the Towers of Silence nothing proceeds which can carry harm to the outside world.”

How then do the bodies of the dead return to the earth in this form of burial? The answer lies with vultures. The presence of the indigenous, Indian, white-backed birds form an integral part of the circle of life in this cultural practice. These seemingly repulsive birds serve a vital ecological function—they aid in the recycling of the dead by cleaning the flesh down to the bones. In this context, Parsis and vultures are bound in an ecological community, a network of relationship that has served each for many thousands of years.

It is axiomatic that members of any ecological community rely on a complex network of interrelationship for their survival.¹ Unfortunately, in the case of the vultures and Parsis, this relationship is now in significant danger. In the past 10 years, the vulture population of India has dropped by an astonishing 99%. The reason? They are ingesting poisons embedded in the flesh of one of their other major food sources: dead cattle.

The substance found in the cattle that are harming the vultures is diclofenac, a medication used to treat arthritic conditions in cattle. Research recently published in *Nature*² has found a causative link between diclofenac in cattle and renal

failure in vultures. In fact, when researchers fed Diclofenac to 20 captured vultures, they found that one twentieth of the dose commonly given therapeutically to livestock is lethal for these birds.³

Diclofenac is a nonsteroidal anti-inflammatory drug that reduces the hormones that cause inflammation and pain in the body, most commonly arthritic pains. Diclofenac is not significantly different than ibuprofen in its action, but it is much cheaper and is the most commonly prescribed veterinarian painkiller on the Indian subcontinent.

Humans use diclofenac, which goes by the brand names Cataflam (Novartis Pharmaceuticals, East Hanover, NJ) and Voltaren (Novartis Pharmaceuticals). Pharmacologic data reveal that 65% of this drug is eliminated through the urine, 10% of which remains in an unchanged form. In fact, although the drug can be absorbed completely through the gastrointestinal wall, only 50% is actually metabolized by the body. The drug has a half-life of 80 hours. Because the drug is often prescribed four times daily, a steady supply of diclofenac pours into our streams and rivers and, in this way, makes its way into our food supply. The published literature on Voltaren states that one of many potential adverse reactions to this drug in humans is nephritis (severe inflammation of the kidneys).⁴

This study published in *Nature* is perhaps the first proven linkage between pharmacologic medicine and larger ecological and social degradation—a potentially huge area of study that has been largely overlooked. Researchers from the Peregrine Falcon Foundation, the authors of the Indian vulture study,² have established that veterinarian drugs fed to domestic animals can cause major ecological damage. This study reveals in no uncertain terms that the time has come for us to actively consider the impacts of our medicines on the larger ecological community in which we are embedded. Because we overlook this connection, the Parsis are

faced with a culturally impossible situation—burial and cremation are unacceptable within their tradition. As a result, the bodies of recently deceased Parsis are piling up, and decomposition is unnaturally slow, leading to a much larger public health crisis.

The environment is one of the most important determinants of health. Clean air, safe food, pure water, proper housing, safe workplace, safe transportation, and healthy global climate are all physical influences on good health.⁵ Significant evidence exists that proves the importance of all of these attributes. Weakening of any of these environment factors can have grave consequences on individuals, societies, and planetary health.

Protection of the environment is essential for prevention of human illness and disease. Since the first modern public health measure—water treatment in Munich, Germany in 1836—physicians and policymakers have proven time and again that public health measures, particularly environmental safety, are the most cost-effective way to create sound personal health. In fact, public health measures directed at maintaining environmental integrity have been far more effective at improving human longevity and other health indicators than medical pharmacology.⁶

Healthcare that supports environmental integrity does exist in the form of many of the complementary and alternative medicine (CAM) techniques practitioners use today. These techniques can be used more widely and have been proven to be effective in veterinary as well as human health issues. In a recent study published in *Alternative Therapies*, Albrecht and Schutte⁷ investigated the efficacy of homeopathic medicines versus antibiotics as a preventative measure for respiratory illness in pig farming. The study concluded that homeopathic doses were “significantly effective compared to placebo as well as low-doses of antibiotics for rate of disease and inci-

THE PRINCIPLES OF ECOLOGICALLY SUSTAINABLE MEDICINE

Ecologically sustainable medical practices are as follows:

- Safe and harmless;
- clean and nontoxic;
- cost-effective;
- nonpolluting;
- adaptable and flexible;
- renewable;
- protective of the quality of life on earth, the environment, and the earth's natural resources;
- synergistic with human health and planetary well-being; and
- connected with the web of life.

dence of respiratory diseases in animals studied.” In fact, the study showed that the only prevention for disease that would be as effective as homeopathy would be to give the pigs therapeutic doses of antibiotics all the time.

Albrecht and Schutte also briefly discussed the negative adverse effects of the routine prophylactic use of antibiotics in the livestock industry. The risks of this common approach include the development of bacteria resistant to antibiotics, adverse effects in the animals themselves, feces containing antibiotics leaching into the ecosystem, and negative consequences of these antibiotics on human populations.⁸

Many CAM techniques are safe and effective in caring for health; they are also nontoxic, nonpolluting, renewable, and protective of the quality of life on earth, the environment, and the earth's natural resources. It is time CAM practitioners recognize that they have the capacity not only to help individuals toward greater health but that their techniques are a form of environmental stewardship that promote human health and planetary well-being.

Healthcare practitioners who serve as environmental stewards can add a powerful set of tools to their healing practice. This is best done in three primary ways:

- become knowledgeable about the environmental factors that create health and cause disease;
- practice or consider promoting ecologically sustainable medicines (ESM) as

the first choice of medical treatment whenever possible; and

- become a spokesperson on environmental issues and hazards to the public and to policy makers.

Western medicine has created a field called *Environmental Medicine*, which is an “approach to medical care dedicated to the evaluation, management, and prevention of the adverse consequences resulting from Environmentally Triggered Illnesses.”⁹ As a growing specialty, Environmental Medicine continues to take its place as a valuable addition to contemporary healthcare. Unfortunately, because there is increasing environmental degradation with negative impacts on human health, relegating this important information to the domain of specialists is not sufficient. At this point in time, it is the responsibility of every point-of-entry health provider—both mainstream and CAM—to have a significant understanding of impacts on health of environmental issues.

With today's easy access to information, every healthcare practitioner should make it a part of their ongoing education to keep up with local environmental issues, particularly when it comes to air, water, and contamination of land, which directly impact the health of their patients. It is also the responsibility of primary practitioners to understand and recognize the effects of environmental contamination and to be able to offer viable treatment or make proper referrals to specialists for treatment when necessary.

As the cautionary tale at the beginning of this article demonstrates, the way in which healthcare is practiced must also be taken into account when thinking about environmental degradation. To take seriously the responsibility of environmental stewardship, healthcare practitioners must expand their understanding of environmental harm beyond such issues as coal-fired power plants and automobile pollution to include the tools they routinely use, including modern pharmacologic solutions. Recent research from the American Water Works Research Association has found significant amounts of drugs, herbicides, fragrances, birth-control hormones, and weed killers in America's drinking water.¹⁰ We will increasingly discover more examples of ecological decline

as we continue to consume more pharmaceutical medicines that end up in the environment, just as 10% of all Voltaren continues to do.

We do have ecologically sustainable healthcare alternatives available to us. Practices that do not harm the environment, such as those that meet the principles of Ecologically Sustainable Medicine (see sidebar), should serve as the first line of defense in treating illness. If these approaches prove insufficient to restoring health, mainstream choices can be used with the awareness that these choices often have unintended negative consequences for the environment.

A careful risk/reward analysis of using mainstream healthcare solutions will weigh in favor of their use in particular circumstances. The danger in our current approach is that this risk/reward analysis is not even a part of the conversation about healthcare, much less a standard part of healthcare practice. Before we risk the long-term consequences of many of our medical interventions, sustainable medical practices should be considered first. This emphasis will greatly reduce the ever growing damage mainstream medicine is creating to our environment, not to mention to sustainability of our own long-term, personal health. In practice, the use of sustainable alternatives will not in any way reduce our success in improving our health. In fact, this precautionary approach will most likely significantly improve the general health of all beings on the planet.

As environmental activists Anthony Cortese and Audrey Armoudlian write, “Physicians must think of themselves not only as specialists concerned about the direct effects of environmental problems on human health, but as advocates for the ecological health of our planet.”¹¹ Healthcare practitioners, when recognizing the signs of environmental damage to human health, must transform this knowledge into environmental action. It is our responsibility as healthcare professionals to report our findings directly to policy makers and to promote sustainable and preventative approaches to healthcare. Providers acting as environmental stewards are often the first to recognize environmental illness and therefore have a certain responsibility to play this role. By understanding local environmental issues, we

can shape local and national environmental and healthcare policy.

As CAM practitioners, many of us are already practicing Ecologically Sustainable Medicine. It is time that we add to our practice models the awareness that embedded in the very nature of our care is a responsibility for environmental stewardship. When healthcare practitioners become environmental stewards, we are taking direct action toward a healthier world for ourselves, our children, our communities, and all life on our planet. We need the voice of healers to join in addressing the challenges we face as a global community.

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