Above All, Do No Harm

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In Regione Caecorum Rex Est Luscus.
"In the land of the blind, the one-eyed man is king."
Desiderius Erasmus,
Dutch philosopher (1466 - 1536)

When the history is finally written, it can be safely said that only the acupuncture profession was free from blame for the greatest medical holocaust of the 20th century. Our form of medicine has been documented for over 5000 years to be safe and effective. Our treatments rarely if ever harm; our herbs rarely if ever poison; our healing touch rarely if ever hurts.

Contrast our level of care with that afforded by the prevailing Western medical community, which has neither awareness of *qi* nor, apparently, the power of the invisible.

Dr. Barbara Starfield of the Johns Hopkins School of Hygiene and Public Health reported in the *Journal of the American Medical Association (JAMA)* Vol. 284, No 4, July 26th, 2000 that 225,000 deaths per year are caused from Western medical care:

- 12,000 from unnecessary surgery;
- 7,000 from medication errors in hospitals;
- 20,000 from other errors in hospitals;
- 80,000 from infections in hospitals; and
- 106,000 from non-error, negative effects of drugs.

Surprisingly, when we speak of the medical holocaust of the 20th century, we are not referring to these causes.

Instead, we refer to the fact that M.D.s, osteopaths, and chiropractors took way too many X-rays with equipment which too often was improperly calibrated, creating half of all malignancies (including 70% of breast cancers) and perhaps 60% of all ischemic heart disease (about 500,000 deaths each year from these two illnesses). Ironically, many of these X-rays were taken to protect against malpractice lawsuits.

Unfortunately, with the advent of CT scans and PET scans, which deliver approximately 60 times more radiation than regular X-ray exams, patients now receive dramatically increased levels of radiation when undergoing diagnostic procedures. In 1999, 85 people out of 1000 underwent a CT scan. By 2007, 234 people out of 1000 had a CT scan in that single year. The financial cost for CT scans to the federal government alone was $100 billion, and this does not include the cost to human health and suffering. Thus the medical catastrophe of the 20th century has gotten even worse, as GE salesmen do not bring more good things to life by overselling their quota of CT scan units.

What makes ionizing radiation so problematic? By definition such radiation is small enough to enter into the atomic structure and powerful enough to break atoms apart, creating ions. When these atoms are located within the molecules of the human genetic code, mutations occur. An especially significant risk occurs when the apoptosis gene of human cells, which instructs cells when to stop reproducing, gets damaged or destroyed.

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Without an on/off switch to tell cells when to die, they keep on proliferating unchecked. This is the very definition of cancer: unregulated cell growth, which then compromises the health of surrounding tissues.

Why is the medical community and hence the general public not aware of the dangers associated with too many X-rays? Through the first half of the 20th century, this technology was too new for most doctors to comprehend fully its long term adverse effects, since it can take thirty years for the genetic damage caused by ionizing radiation to show up as cancer and heart disease. The mishaps during this period of innocent ignorance have been well chronicled by Dr. John Gofman, M.D., Ph.D. (Physics) in his book ***Preventing Breast Cancer: The Story of a Major, Proven, Preventable Cause of this Disease.***

Did you know that from 1916 to 1960 most children undergoing tonsilletomies were X-rayed to determine if their thymus glands were too large, which, if so determined, were then subjected to massive amounts of radiation to destroy them? The thymus glands that is. The children died much later.

Did you know that post-partum mastitis was routinely treated with X-rays, as were acne, bronchial asthma, hyper-thyroidism, infections, inflammatory disorders, pertussis, pneumonia, and even ringworm of the scalp? The sad fate which befell the many Israeli children who were treated with X-rays for tinea capitis (cradle cap) has been turned into a chilling documentary called ***X-rayed to Death***, highly recommended viewing for any doctor looking to renew his/her Hippocratic Oath to "do no harm."

With the advent of the Manhattan Project during World War II, promoting ignorance as to the dangers of radiation became a government priority, as military forces world-wide sought to develop atomic weapons to protect their citizenry. Between 1945 and 1963, the Americans, British, Chinese, French, and Russians exploded more than 620 nuclear bombs in the atmosphere, exposing all living beings to 50,000 tons – tons, not pounds – of radioactive fallout. The researcher Mons Lie estimates that 430,000 people died of cancers from that fallout.

Although the medical establishment was silent then, fortunately the few thousand sane doctors who formed Physicians for Social Responsibility spoke eloquently enough to pass the Above Ground Nuclear Test Ban Treaty of 1963.

Still, the U.S. government worked to minimize concerns about radiation. Seeking to develop 1,000 nuclear power plants, in 1963 the Atomic Energy Commission (AEC) funded Dr. John Gofman to research (for the first time ever!) the effects of ionizing radiation on human health. Dr. Gofman was a trusted AEC ally who had created the means to process plutonium while working on the Manhattan Project. After the war he became an M.D., discovered the adverse effects of cholesterol, and was honored as one of the leading cardiologists of the 20th century. Thus he was a well-respected figure in medicine.

What the AEC did not count on was Dr. Gofman's commitment to public health. In 1970, at the end of his seven year study, he reported to Congress that tens of thousands of Americans would die from radiation-related cancers yearly if 1,000 nuclear power plants were built. Dr. Gofman never received another government grant again, and his warnings were suppressed by both Congress and the AEC.

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Dr. Gofman devoted his remaining years to researching the health effects of **medical** radiation and reached the following conclusions:

- Most people will develop cancer if exposed to 200 rem units of radiation in a lifetime, with a 20-30 year lag time between exposure and full blown cancer and ischemic heart disease.
- The chances of developing cancer and heart disease are directly proportional to the amount of exposure to mutagen-inducing radiation.
- Children are much more at risk, perhaps 20 times more so, since their cells are growing rapidly.
- Breast tissue is especially vulnerable.
- Doses per exam can vary up to 100 fold from one facility to another.

However, U.S. government sponsored radiation watchdogs, such as the Biological Effects of Ionizing Radiation (BEIR) study group, have scoffed repeatedly at the notion that medical X-rays could significantly increase the risks of cancer and heart disease.
They purport that natural background radiation is about 300 millirems a year, whereas the average amount of exposure from a typical set of anterior and lateral chest X-rays, for example, is supposedly only 6 millirems. Medical professionals have based their judgments upon these BEIR assurances as they blithely expose patients to numerous diagnostic X-rays.

How did BEIR come upon this 6 millirem average figure? Who knows? It certainly was not based upon findings from real world clinical settings. Another government agency, Nationwide Evaluation of X-ray Trends (NEXT), conducts yearly physical inspections in actual doctors' offices to document how much X-ray radiation is given off per exam. Their 1972-4 study of 52 clinics revealed that the average dose given per set of chest X-rays was 784 millirems! Another NEXT survey of 1433 clinics found that the lowest dose given for a single chest X-ray was 3.42 millirems and that the highest dose was 2,622 millirems!

This huge variance in doses delivered underscores another critical breakdown in the safety of America's X-ray imaging system. There are very few inspectors out there making sure machines are properly calibrated. This used to be a catastrophic problem when it came to mammographic units, which in 1979 were determined to render on average 10 rems per exam, with some equipment delivering much higher doses.

Since only 200 rems exposure in a lifetime virtually condemns a person to cancer, since breast tissue is among the most sensitive to radiation, and since mammograms were given once a year starting at age 40, public health officials came to realize that mammograms were causing far more breast cancers than they could ever prevent.

Eventually, in 1992, the U.S. Congress passed the Mammogram Quality Safety Assurance Act (MQSA) which mandated that all mammography equipment be inspected yearly and that only a minimal amount of radiation could be emitted per exam. In 1995, the first year of inspection, 70% of machines failed inspection. However, by 1998 nearly 100% of equipment passed, and today the average mammogram delivers only 164 millrems of radiation – a drastic reduction from the 10 rems of years past.
Sadly, this law only regulates mammography. The hundreds of thousands of other pieces of X-ray equipment in use nationwide go unexamined every year; and the doses of

radiation they deliver vary wildly.

Unlike most western practitioners, we acupuncturists understand the power of the invisible, that primordial life force *qi* which pervades our human bodies and courses through the acupuncture channels. We understand how *qi* creates a biological information system which, along with *Jing,* establishes a blueprint for physiological functioning.

With our ability to see what other doctors apparently cannot, it is incumbent upon us to warn patients to prevent a repeat or worsening of this X-ray calamity in the 21st century. Recommend to your patients that they ask a few simple questions of those who would perform X-rays upon them:

- What are the risks of cancer and heart disease from radiation posed by this X-ray exam?
- What is the dose of radiation to which I will be exposed?
- When was this equipment last calibrated by a medical physicist?

Dr. Joel Gray of the Mayo Clinic, who pioneered the use of low-dose radiation while still getting quality X-ray images, said the following about offices which won't tell patients the dose:

My feeling is that if they won't tell you, they don't know, and if they don't know, they could be among the facilities delivering a hundred times the necessary dose.
(*Science Digest*, p. 96, March, 1984.)

Our patients would all do well to heed this advice, and we would do well to give it to them.