



Invasion of the Body Scanners



By John Ostrich, MD

"X-rays are a hoax"

--William Thomson, Lord Kelvin, 1900

THUS SPAKE LORD KELVIN, one of the most respected scientists of the late 19th century. We can all chortle and cluck knowingly now, as we see, with 20-20 hindsight, the spectacular progress that has occurred in the science and practice of radiology in the past few decades.

It is indeed too bad that old Kel - as his friends no doubt called him - could not have been present at the Medical Society Board of Directors meeting on July 9.

On the agenda that night was a discussion of both the science and commercialization of rapid CT scanning designed to uncover asymptomatic brain, cardiac, pulmonary and solid organ disease.

Some members of the Board were concerned about a number of issues that revolve around this new technology. There was an eruption of questions.

First, is it safe? Second, is the advertising for these procedures, directed at the public, misleading or possibly unethical?

Third, are there good data to support such screening, and if not, is anyone keeping score? After a few hundred thousand body scans have been done, will we be able to say assuredly that those who were scanned had benefited?

And lastly, there was a great deal of concern that now, for the first time, radiologists were setting themselves up as surrogate primary care physicians, offering in effect no-touch high-tech physical exams.

Some of the advertising seemed to target the "worried well." It suggests to the, say, overtly healthy 40- year-old man who may never had any sort of "physical" before that a total body scan was a reasonable, and perhaps better, substitute for the admittedly lower tech, and perhaps mildly uncomfortable, "physical" at the generalists office.

What are the scanner radiologist's responsibilities? Does he or she simply tell the scannee that, "Everything looks OK, see you next year? "

Is he or she obliged to sit down with the recently scanned client and talk about health maintenance issues such as proper diet, personal habits, safe sex, exercise and so on?

Should the scanner radiologist be doing a review of systems, and asking about mom's breast cancer or dad's alcoholism?

If a lesion is discovered, for example, in the kidney parenchyma, is the radiologist obliged to pursue it with sonography or a contrast study?

Who pays? Suppose the client has no health insurance? What is he or she told to do?

Drs. Robert Lincoln and John Walter of Radiological Associates of Sacramento Medical Group, and Dr. Franklin Li and Dr. A. Alan White of Sacramento Radiology Medical Group, were on hand to answer the B.O.D.'s questions.

They began by assuring the group that the high-speed scanners presently in use exposed people to very minimal radiation. There were no data to support the efficacy and usefulness of cranial or abdominal scans, but there certainly were when it came to cardiac and pulmonary scans to detect very early lung cancer in smokers and silent severe coronary arteriosclerosis in high risk populations.

They assured the Board that their motivation to set up this sort of program and to promote it in the general media was a result of market pressures, and not meant to interfere with the traditional doctor-patient relationship. People are asking for these scans, they said, which are not available in managed care settings. The scans are, in fact, heavily promoted in many major metropolitan areas and are becoming standard for many so-called "executive" physical exams.

Where does the primary care doc fit in? One Board member muttered, "OK, so you make the mess, and we clean it up." All four radiologists agreed that they were providing a market-driven service. They are not there to make definitive diagnoses, prescribe therapy or offer follow-up.

Their purpose is not to replace the primary care physician, but to supplement his or her information and augment the patient's satisfaction with medical care in general. That a 50 pack-per-year smoker could go directly to a radiologist "just to make sure there's nothing wrong with my lungs" did, however, strike some on the Board as a (please excuse the cliché) paradigm shift.

No referral is necessary. Patients individually decide to have the scan done: the purest form of fee-for-service medical care! The 25-year-old with migraine reassures himself he does not have a brain tumor. The 55-year-old lady with vague pelvic discomfort whose best friend just died of ovarian cancer is able to relax knowing she is not similarly afflicted. The 60-year-old, two-pack-a-day smoker can continue to light up knowing his lungs are (so far) clear of suspicious nodules.

As Mort Sahl quipped, "The future lies ahead." New MRI techniques may soon make coronary and peripheral angiography obsolete and "virtual" GI endoscopy commonplace.

Equipment will become cheaper and more compact and a small medical group may find it economically sensible to buy one and hire a technician to run it. Body or specific organ scans will become accepted as part of any "complete" physical exam.

The patient will enter the clinic, perform a computer-generated, interactive review of systems, undergo a scan that will be "read" and interpreted by a computer, then be subjected to a hands-on exam by a generalist whereupon further testing and therapy will follow at once.

Not long ago there was debate over whether routine mammography was beneficial. Not any more. Here comes the invasion of the body scanners, and soon we will all be scanned.

Was Lord Kelvin wrong, or what?

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