MAURICE CAUCHI

Are we over-investigating our patients?

There has always been controversy about the value of several new (and expensive) methods of investigating disease, particularly cancer. The argument which has been accepted by most physicians has always been that the earlier diagnosis is made, the better the prognosis. We feel much happier when we can remove an obvious cancerous mass, and have relied on the concept of 'disease-free interval' as the benchmark of success.

If advanced diagnostic techniques had no other drawback apart from cost to the community, this argument seemed reasonable enough. However, voices against such a blanket approach have become more strident in recent years.

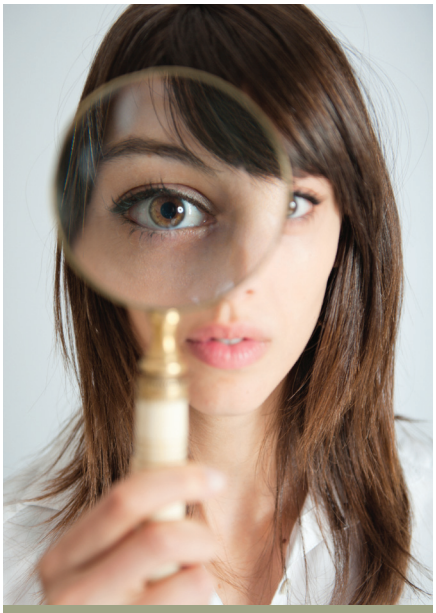
A recent article in *Scientific American,* the sort of journal laypersons as well as practitioners give credence to, has highlighted the case against this approach.[1] These arguments may be summarised as follows:

1. A number of 'cancer diagnostic' tests, including mammography and tests for prostate cancer, the two most common cancers in the western world, have serious effects on patients without saving their lives. As an example, of the 40 million mammograms carried out in the US every year, 138,000 discovered breast cancer, but this diagnosis did not help up to 134,000 (97%) of them. Most of these tumours were either very slow-growing, or would have been detected anyway later on without a deleterious effect, or else they were so aggressive that no treatment would have been of any long-term value. It has been suggested by the U.S. Preventive Services Task Force (2009) that mammograms should be performed at a later stage and less frequently than previously recommended.
2. Chest X-rays have come under similar criticism, in that tumours have appeared within a couple of months of the examination. And therefore were not effective in preventing the disease.
3. PSA (Prostate Specific Antigen) has now been practically relegated to the assessment of patients with established prostate cancer, and has all but lost its lustre as a screening test for this condition.

It would indeed be a mistake to conclude that such tests are irrelevant. The conclusion to be drawn is that selection of patients for examination should be based on clearly indicated medical conditions, and not used as a blanket screening program.

Related to this is the concept of 'quality of life' as opposed to 'disease-free interval'. Months of misery endured by patients on radiation or chemotherapy are justified only if the eventual quality of life justifies the procedures.

One could argue that saving even a single life out of thousands screened is a worthwhile exercise. However, against this, one has to keep in mind that a diagnosis of serious disease brings with it, at the very least, a great deal of worry, not to mention physical discomfort from complications of the treatment itself. This is justifiable only if the benefits obtained from early diagnosis render the side-effects acceptable calculated risks.



Months of misery endured by patients on radiation or chemotherapy are justified only if the eventual quality of life justifies the procedures

If such problems are serious enough for somatic diseases, they are even more pronounced for genetic disorders. There is simply no justification of undertaking complex diagnostic genetic procedures where there is no foreseeable cure, or where available modalities of treatment are not available or allowed in this country. This is becoming more and more relevant in view of the very real possibility that in the near future we are likely to possess extensive knowledge of our own genome with all its blemishes and possible genetic abnormalities. It is well to bear in mind that while all patients have the right to know, they also have the right not to know all the gory details relating to their disease, or tendency to disease.

Dissuading patients from over-investigating themselves, like over-indulging in various medicinals for all sorts of imagined conditions, may be an up-hill battle. Such tests are likely to become more and more easily available, and could very easily lead to misinterpretation and over-treatment. Genetic tests are available on the internet. In Australia, there is currently a move to have nurses perform X-rays. There is much scope and considerable financial incentive for control of medical tests to be taken away from medical supervision. This I believe is a mistake, not because non-medical persons cannot be trained to read an X-ray or perform a genetic test, but primarily because no medical test should be interpreted otherwise than in the milieu of medical practice, where symptoms, signs and ancillary examinations are integrated into one meaningful whole. S

Reference

1. John Allen Paulos. Weighing the Positives: Breaking down the latest mammogram math. *Scientific American*, 2012. 13