

The foreknowledge of extinction

John Launer

We are, so far as we know, the first species that has foreseen its own extinction. In the distant past, this foreknowledge took the form of myths, including visions of Armageddon. In the last couple of centuries, however, we have been able to give precise scientific shape to such forebodings. Modern astronomy and physics have proved that the solar system, galaxies and the universe itself have a finite life—although their end is so far away that people don't usually lie in bed worrying about it. More urgently, Darwin's discoveries have taught us that every species is mortal. Few, except very primitive ones such as thermophilic bacteria, can withstand for very long the buffets of an environment that changes perpetually. Most are only around for a fairly short period. Although he never actually spelt it out (he already had enough worries about upsetting public opinion), Darwin made it as clear as possible that human beings were unlikely to be exceptions in this respect.

Darwin wouldn't have hazarded a guess as to exactly how long *homo sapiens* would remain viable on the planet. Since his time, however, the prognosis for our collective life expectancy has become much clearer. It looks bleak. We know more than anyone did 150 years ago about the interactions between global vegetation, atmospheric gases, temperature and sea level. We realise with clarity the contribution we have made ourselves to planetary changes. Although we aren't the first species to have hastened its own decline through population growth and depredation of resources, we may well represent one of the most dramatic examples of this process. Irreversible changes in our environment probably became inevitable as soon as we discovered fire and invented agriculture in prehistoric times. In the past three or four hundred years, the use of fossil fuels has vastly accelerated such changes. Now, that acceleration is carrying on pretty much exponentially.

REGULAR WARNINGS

Over the course of my own lifetime, I've heard regular warnings that we only had a few years or decades to bring a halt to the

Correspondence to: Dr John Launer, London Deanery, Stewart House, London WC1B 5DN, UK; jlauner@londondeanery.ac.uk

process. People already knew about greenhouse gases when I went to primary school in the 1950s. Our teachers explained that we would have to reduce these within 30 years, in order to prevent global warming. The prediction may have been optimistic even then. Having passed that deadline long ago, I now have little reason to doubt the view of the ecological guru James Lovelock that we are now well past the "tipping point" in climate change, and should plan for adjustment to the inevitable rather than undertaking futile measures aimed at prevention.

In his most recent book,¹ Lovelock has some quite specific proposals about how we should prepare ourselves for changes that will probably take place in our own lifetime, and certainly in our children's. He warns us to expect huge movements of populations. (Arguably, these are already taking place: some people have linked the upheavals, humanitarian disasters and mass migrations in Africa to rising temperatures, soil erosion and consequent land shortages.) He believes that the overall population of the planet will decline massively over the next century, possibly from seven billion to one billion. He believes the population will become concentrated on higher ground in temperate zones, of which places such as Britain, Japan and New Zealand offer examples, as well as parts of the United States, Canada and Russia.

Lovelock proposes that we should start now to prepare for forms of civil society and agriculture fitted for this kind of demographic picture. In particular, he thinks we should adapt our energy sources to make it possible for humanity to survive in a limited number of enormous conurbations with an adequate food supply. Surprisingly, he is a great proponent of nuclear power as a way of making this feasible, although he has nothing to say—at least in this book—about the potential risks of storing the nuclear waste.

GRIM IMPLICATIONS

Although he describes himself as an optimist, the implications of Lovelock's forecasts are grim. It's hard to imagine the events that will accompany climate change, presumably including wars and famines as well as vast numbers of refugees. It is even harder to imagine

how any political state other than a violently authoritarian one might manage a systematic reduction in people's material expectations, or impose the kind of infrastructure needed to allow the world's remnant population to endure for much longer. Lovelock, perhaps understandably, does not go there. He also says little about the frame of mind needed to contemplate our likely future without either denial or despair.

Lovelock does make a useful comparison, however, between our ecological predicament and the worldwide bubble in the financial markets in the last couple of decades. He points out that we have taken the same cheerfully delusional attitude to both. He stops short of saying that the bursting of the bubble and the moment of passing the ecological "tipping point" are actually connected, but I suspect they are. Like many people, I have a sense there is a profound link between the global financial crash and the last pyrotechnic climax of industrial society. Our beliefs in the power of markets, the inexhaustibility of fuel, and the immutability of our climate have all become inflated in recent years. They have been driven by the identical *fin de siècle* mania. It may be no coincidence that we are having to shed them all at the same time too.

LIVING IN THE MOMENT

It is hard to resist making another connection too. Our approach to medicine may have become governed by exactly the same mind set as the financial markets and industry. As doctors, we have generally looked to technological solutions in cases where better human interactions might be at least as good, or possibly even better. We still find it hard to anticipate people's deaths and prepare them for it, just as we denied for so long that the money and the oil would ever run out. Rather than helping people to live in the moment, and celebrate whatever transient comforts they may have, we drive them onwards to a dimly imagined state of bodily perfection and immortality that will never come.

Over the next few decades, the Earth will change. Whatever alterations come about in the balance of atmospheric gases or the level of the oceans, the ecology will become re-calibrated. Natural selection will benefit some other species as it has always done before. Global ecology has responded many times to natural fluctuations in temperature, as well as to far greater annoyances than human beings will ever bring about.

The planet, of course, will survive. As James Lovelock good-humouredly points out, "Save the World" is merely a fatuous and self-serving slogan. What we really want to save is our way of life, and that is

no longer possible. Medicine, along with everything else, will need to adapt to the realities.

Competing interests: None.

Postgrad Med J 2009;**85**:223–224.
doi:10.1136/pgmj.2009.081257

REFERENCE

1. **Lovelock J.** *The vanishing face of Gaia: a final warning.* London: Penguin Books, 2009.

Images in medicine

An uncommon complication of a common procedure

A 66-year-old woman was admitted with sudden onset of left upper quadrant pain associated with left shoulder pain, 3 h after a routine colonoscopy. A CT scan of the abdomen performed at presentation revealed a large subcapsular splenic haematoma (fig 1, arrows). There was no evidence of colonic perforation. She was admitted to the intensive care unit and managed conservatively with intravenous fluids and analgesics. She was discharged after a period of observation.

Splenic haematoma is a rare complication of colonoscopy. About 44 cases have been reported in the English literature. It occurs more commonly in women. The postulated mechanism is partial capsular avulsion secondary to traction on the splenicocolic ligament.¹ The incidence is higher in technically difficult procedures and in patients who have adhesions from prior surgery.

A high index of suspicion is the key to diagnosis, as sometimes this complication may be delayed by several days. CT scan is the investigation of choice, although ultrasonography may be an alternative. Surgery may be required in some cases.

R Ranganath, S Selinger

Franklin Square Hospital Center, Baltimore, Maryland, USA

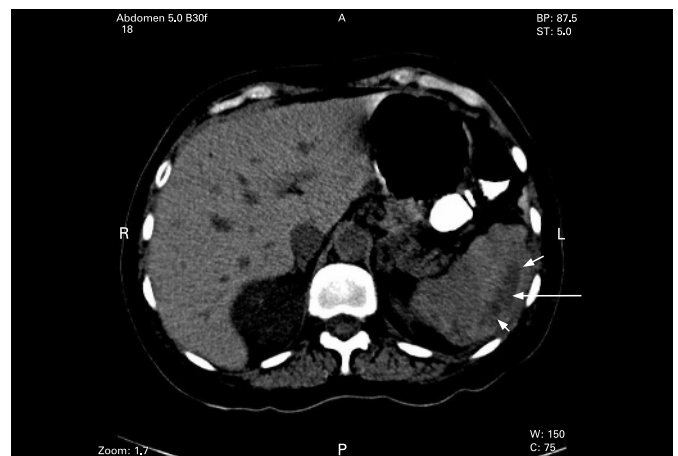


Figure 1 Abdominal CT scan showing a large subcapsular splenic haematoma (arrows).

Correspondence to: Dr R Ranganath, Franklin Square Hospital Center, Franklin Square Drive, Baltimore, MD 21237, USA; rkrish_2001@yahoo.com

Competing interests: None.

Patient consent: Obtained.

Postgrad Med J 2009;**85**:224. doi:10.1136/pgmj.2008.075135

REFERENCE

1. **Luebke T,** Baldus SE, Holscher AH, *et al.* Splenic rupture: an unusual complication of colonoscopy: case report and review of literature. *Surg Laparosc Endosc Percutan Tech* 2006;**16**:351–4.