The secret history of the war on cancer

Devra Davis

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In 2007, the American Cancer Society reported 12 million new cancer cases worldwide and 7.6 million cancer deaths. Given these staggering numbers, it's no wonder that people are beginning to question why the War on Cancer, declared by President Nixon in 1971, has not led to the elimination of this disease. Epidemiologist Devra Davis, director of the Center for Environmental Oncology at the University of Pittsburgh Cancer Institute and an environmental advisor to *Newsweek*, argues in her new book, *The secret history of the war on cancer*, that this effort has not focused on the "right" battles. She insists that progress has been lost as governments placate and cover up for industries that pollute and contaminate the environment with carcinogens and that more attention should be focused on environmental risks for this disease, such as tobacco use, alcohol consumption, and workplace carcinogen exposure.

This is familiar territory for Davis. Her previous book, *When smoke ran like water* (1), a 2002 finalist for the National Book Award for Nonfiction, documented the relationship between air pollution and a host of human diseases. In this new release, she concentrates on cancer as a by-product of industry greed and governmental negligence. As a cancer researcher myself, I found the book to be informative and interesting, but the title is a misnomer. Most of the information Davis reveals is already in the public domain and thus not really a secret. Her historical references are valid reminders of associations made in the past between environmental toxins and cancer-plagued populations; however, a problem with this book, at least from a scientist's perspective, is its tone of sensationalism.

Davis implies, often rightly so, that a number of known cases of carcinogen exposure

were never fully appreciated by the public. Still, they weren't necessarily kept secret. The issues become confused as she bounces from one to another, in no perceivable order, venting outrage. For example, she describes the human experimentation performed in Nazi Germany that indicated a clear connection between tobacco exposure and cancer. However, she deadens her point by expounding on the numerous other atrocities carried out during the Third Reich. It has become clear to those in the cancer field that the dangerous effects of tobacco have been known for quite some time, even while tobacco companies claimed that more research was needed before any connection between tobacco and cancer and consequent recommendations could be made. Davis cites several examples in which industry leaders and other power brokers downplayed cancer prevention research and kept evidence of environmental hazards out of the public domain, and she insinuates that suppression of potentially key information still continues today. This may be true, but it is a damaging accusation to make and one that would be helped with the support of more hard data.

Clearly, some important observations have been made linking cancer to workplace exposure in situations wherein corporate greed played no part. For example, in the 1770s, British chimney sweeps were noticed to have a high incidence of testicular cancer, traced to soot collected in the scrotum. Chimney sweeps who wore leather pants did not develop the disease. Research advocates often use this classic case study to show how focusing on specific populations can lead to the prevention of certain cancers. Davis supplies important details about how chemicals are classified as carcinogens, but she does not fully explore the point that the public is

exposed to complex mixtures of these agents, yet testing is done on one chemical at a time. These combinations, at low levels, may be far more dangerous than exposure to a higher concentration of one agent alone.

One of the greatest unpreventable risk factors for cancer is age. With the tidal wave of baby boomers fast approaching retirement age, we will definitely see many more cases of cancer over the next few decades. The key will be to lessen the impact of other risk factors that are preventable, such as obesity, sedentary lifestyle, poor diet, and environmental exposures like UV light. Also, exposure to tobacco is a huge risk factor, accounting for about 25% of all cancers. Vast numbers of cancer deaths could be avoided if we convince patients to avoid tobacco and excess exposure to UV light, eat right, and exercise. Prevention, Davis points out, should be a new area of emphasis in cancer research. For example, with the recent introduction of a human papillomavirus vaccine (HPV), the incidence of cervical cancer, which is directly related to HPV infection, should continue to decline. Davis raises important questions about the need to vaccinate girls, boys, and gay men against HPV, instead of just focusing on the ongoing debate regarding the vaccination of young girls against this sexually transmitted disease.

Aside from some unsupported claims about the effectiveness of alternative treatments to cancer such as yoga, meditation, massage, herbs, and acupuncture that detract from the scientific heft of this book, Davis presents a good discussion for the lay public. However, cancer scientists may find it more frustrating than informative.

1. Davis, D. 2002. *When smoke ran like water: tales of environmental deception and the battle against pollution*. Basic Books. New York, New York, USA. 316 pp.