

Chapter 8

Complementary and Alternative Medicine

Man is a credulous animal, and must believe something; in the absence of good ground for belief, he will be satisfied with bad ones.

– Bertrand Russell

The lure of non-traditional remedies for all sorts of ailments has been with us for centuries ranging from herbs, to fruits, to plants, to salts of several heavy metals. As described in the previous Chapter, NCI tested tens of thousands of compounds, including plants, marine invertebrates, and algae, in a vast and expensive but low yield effort to uncover anti-cancer agents. Yet, a number of clinically useful agents emerged from the search, including Irinotecan (Camptosar®), extracted from the *Camptotheca Acuminata*, a fern-like deciduous tree; Paclitaxel (Taxol®), extracted from the Pacific Yew tree; Etoposide (VePesid®), extracted from *Podophyllum Peltatum*, a North American herb; and Vincristine (Vincasar PFS®), extracted from the periwinkle plant. Such a powerful endorsement of the medicinal properties of plants is often used to justify the promotion of many empirically unproven “natural” means to treat ailments ranging from backaches to cancer. On the other hand, despite recent progress understanding the nature and causes of cancer, its standard treatment remains inefficacious at best and harmful at worst, and the lives of patients with disseminated cancer continue to be wretched and short. In such an environment, the stage was set for the proliferation of new alternate cancer treatment approaches, often promoted by self-serving healthcare providers or charlatans making farfetched claims. For historical perspective, I will cite only some of the most outlandish cancer remedies of the eighteenth, nineteenth, and twentieth centuries that captured the public imagination, including the “Storck” and “lagartija” cures, the *cura famis* and “treatment by cold”, and the Gerson diet, respectively.

In the eighteenth century, Anton Storck (1731–1803), a Viennese physician and Rector of the University of Vienna, claimed that a concoction of his based on hemlock (the highly toxic plant that caused Socrates death) was highly effective against breast and uterine cancers when administered in sufficiently high doses to cause faintness (his version of today’s toxicity-limiting approach to chemotherapy dosing), though he had few followers and the method was abandoned. A colorful example of the extraordinary gullibility of physicians and the public followed publication of a 14-page booklet, in 1783, by José Felipe Flores (1751–1824), a physician and professor at the Real University of Guatemala, praising the curative properties of a Central American lagartija (lizard) [489]. This particular lizard could cure many illnesses, including venereal diseases, leprosy, and cancer. The lizards had to be beheaded, skinned, disemboweled, and swallowed whole “while the flesh is still warm” [490]. One lizard per day was generally sufficient, but the dose could be increased to three lizards daily, which, according to Mexican Indian tradition, was always effective. To make the remedy more palatable and patients more compliant, animals could be sliced into small pieces and made into wafers or pellets “slightly smaller than a bullet” [491]. The exotic nature of this treatment, its peculiar formulation and dosing schedule, and the fact that it was shrouded in the mystique of an old American Indian remedy contributed to its immediate success and enthusiastic acceptance throughout Europe, where Flores’ booklet was translated into French, German, English, and Italian. The lagartija cure was the subject of innumerable testimonials, several books and reports, and of at least one doctoral thesis before it finally vanished into oblivion half a century later.

In the nineteenth century, two of the most interesting cancer cures were the *cura famis* and treatment by cold. These are of interest to us because, although they rallied few patrons at the time, they resurfaced mutated in the late twentieth century, inspired by advances in molecular biology and biotechnology. The *cura famis*, or cure by starvation, consisted of starving the cancer through a water diet that could last up to 40 or 50 days. However, patient non-compliance and its ineffectiveness led to a more radical variant: the severing of the cancer’s blood supply. The idea is attributed to William Harvey, who

observed that ligation of afferent testicular arteries, to deprive the testis of nutrients, resulted in testicular atrophy and necrosis [492]. However, testicular cancer was the only natural target for such an approach given its anatomy that facilitated access to feeding vessels, and the procedure never caught on, despite its well-founded if simplistic rationale. One and a half centuries later, a variant of *cura famis* reappeared under the name of angiogenesis inhibition, or the starving of tumors using biological agents that inhibit new vessel formation necessary for cancer growth [493]. The treatment by cold, proposed by British surgeon John Hughes Bennett (1821–1875) consisted of applying cold, which he described as “one of the most powerful means we have to slow the progress of cancer” [494]. Bennett’s method entailed applying a mixture of two parts of chopped ice and one part of sea salt to the tumor for 15–20 min each week [495]. Although this treatment had no effect on cancer progression, it seemed to alleviate pain. Bennett is better known for his emphasis on the use of the microscope in medical pathology, and is credited for first describing leukemia, though the credit should rightfully go to French physician Alfred Donné (1801–1878), inventor of the photoelectron microscope, also known as photoemission electron microscopy. Ironically, Bennett questioned the validity of Pasteur’s pivotal experiments refuting spontaneous generation. It is worth mentioning that, although Bennett’s treatment by cold method never achieved any degree of success, the concept resurfaced at the end of the twentieth century in the form of heat and hypoxia used as an adjunct to chemotherapy in futile attempts to enhance the susceptibility of cancer cells to the cytotoxicity of cancer drugs [496]. Heat or cold have been delivered during surgery (“thermo- or cryosurgery”), under magnetic resonance imaging guidance, to treat drug-resistant cancers, especially in anatomically inaccessible sites such as liver metastases, with limited success [497, 498]. The recycling of old ideas about cancer treatment is a reminder of the biblical admonition,

The thing that hath been, it is that which shall be; and that which is done is that which shall be done: and there is no new thing under the sun [499].

In the twentieth century, it was the turn of the Gerson diet, among others, which was forcefully brought to my attention after publication of my 2005 book titled *The War on Cancer* [500]. In it, I exposed the poor outcomes of cytotoxic chemotherapy for treating advanced cancer, but did not include CAM approaches to cancer management as a potential solution, for my focus was on traditional medicine, and I was unaware of any convincing empirical evidence of their usefulness, despite their widespread use over decades, and in some cases, centuries. Interestingly, many of my statements and views expressed in that book were used or quoted by practitioners and promoters of CAM methods to bolster their claim that their favorite alternate method succeeds where chemotherapy fails. To illustrate, a review of my book – published in the *Journal of Medical Truth*, no less – stated,

What Faguet doesn’t know – having spent all his life in the Cancer Establishment club – is that this technique already exists and has a documented real [original emphasis] cure rate of more than 40 %; it even cures pancreatic cancer. It’s known as nutritional medicine or the Gerson Therapy. Therapeutic doses of nutrients combined with detoxification restores those molecular genetic pathways perfectly, predictably, and measurably. The dream of standard oncology is daily reality with this therapy [501].

Hence, while I have no intention of engaging in a pointless debate with promoters of non-traditional medicine, I decided to fill my knowledge void on the Gerson diet, arguably the best known non-traditional cancer cure method. My main source of information was gathered in April 2013 from the Gerson Institute website, which I assume to be current and the most reliable coverage of the Gerson diet. The following represents the essence of what I learned. Max Gerson (1881–1959), a German physician, developed the Gerson diet in the 1920s. According to the Gerson Institute, founded by his daughter in 1977,

The Therapy activates the body’s extraordinary ability to heal itself through an organic, vegetarian diet, raw juices, coffee enemas and natural supplements. The Gerson Therapy treats the underlying causes of disease: toxicity and nutritional deficiency...rather than selectively targeting a specific condition or symptom. Over the past 60 years, thousands of people have used the Gerson Therapy to recover from so-called “incurable” diseases, including: Cancer (including melanoma, breast cancer, prostate cancer, colon cancer, lymphoma, pancreatic cancer and many others)... [502].

While the Gerson diet includes supplements such as vitamin B-12, thyroid hormone, lugol’s solution, pancreatic enzymes, and potassium, its curative power appears to rest on,

... flooding the body with nutrients from about 15–20 pounds of organically grown fruits and vegetables daily...[to] boost the body’s own immune system to heal cancer, arthritis, heart disease, allergies, and many other degenerative diseases...[and on] Coffee enemas [up to 5 each day for cancer patients that] are the primary method of detoxification of the tissues and blood... [503].

No one will argue with the tenet that fresh fruits and vegetables must be part of a balanced diet or that certain unhealthy diets increase the risk of developing cancer, as documented in this book and elsewhere.

However, reliance on any diet as the exclusive or primary approach to treating cancer is a farfetched proposition supported not by rigorous empirical evidence but by well-chosen testimonials. Likewise, I am not aware of any scientific study supporting the therapeutic value of coffee enemas in any disease, let alone cancer. In my judgment, this is another classic case of an alternate method supported by an alternate proof of concept, an approach that is broadly applicable to all CAM methods. One wonders whether Gerson diet patients share the same cheerfulness after eating such voluminous amounts of fruits and vegetables day after day and after having submitted to 5 enemas each day, unless cured of their disease or having attained the 5-year survival benchmark. While such discomfort is justifiable for the occasional outlier long-term survivor, adhering to the Gerson diet or to any other CAM method as exclusive treatment enables the progression and dissemination of early-stage cancers, rendering such tumors incurable and fatal. Nevertheless, having gone through previous Chapters condemning traditional cancer management, readers will understand that critiquing CAM methods is not an indictment of CAM promoters, but of the lack of evidence-based proof of the efficacy of their methods. Indeed, most promoters of CAM methods, like practitioners of traditional medicine, believe in their approaches to cancer management despite repeated failures on both sides. Moreover, patients are free to make an informed choice of whatever treatment method they prefer, whether traditional or alternate. Yet, a rational resolution to the entrenched views on both sides must be guided by the evidence. Hence, I urge – better yet, challenge – promoters of non-traditional cancer treatment methods to conduct credible clinical trials on their own or assisted by clinical researchers at reputable cancer research centers of their choice. Such trials would generate the database necessary to assess the comparative advantages and disadvantages of each CAM method against each other and against traditional approaches to be disclosed to patients faced with a difficult choice. Should the outcome of any CAM trial match either pre-clinical claims or results from established traditional approaches, it could convert skeptics and become mainstream, but, more importantly, potentially benefit hundreds of thousands of cancer patients each year. In the meantime, I will continue to call for a paradigm shift in traditional cancer management to eventually conquer this large group of diseases that continue to frustrate the scientific community, or at least ensure that treatment does not reduce QOL in patients unlikely to benefit, as proposed in the last Chapter. Public and political pressure led NCI to establish the Office of Cancer Complementary and Alternative Medicine (OCCAM) in 1998. Its mission is “to acquire and develop high-quality information about cancer and CAM for NCI and for dissemination to the health care community, researchers, patients, and the general public,” which it ensures through intramural and extramural research programs at a cost exceeding \$100 million in 2011. In its latest report (2011), OCCAM listed the following CAM categories and subcategories under its radar [504],

- Alternative Medical Systems: Ayurveda, Homeopathy, Traditional Chinese Medicine, Tibetan Medicine.
- Energy therapies: Electromagnetic-based therapies, Biofield therapies.
- Exercise therapies: T'ai chi, Yoga asanas
- Manipulative and body-based methods: Chiropractic, Therapeutic massage, Osteopathy, Reflexology.
- Mind-body interventions: Meditation, Hypnosis, Art therapy, Biofeedback, Imagery, Relaxation therapy, Music therapy, Cognitive-behavioral therapy, Aromatherapy
- Nutritional therapeutics: Macrobiotic diet, Vegetarianism, Gerson therapy, Kelley/Gonzalez regimen, Vitamins, Soy.
- Pharmacological and biologic treatments: Antineoplastons, Low-dose naltrexone, Immunoaugmentative therapy, Laetrile.
- Spiritual therapies: Intercessory prayer, Spiritual healing. Although exploring any realistic avenue that might lead to improving cancer management by evidence-based methods, as I advocate private CAM promoters should do, the breadth and scope of CAM categories and subcategories under OCCAM's politically-correct radar is likely to take several decades without leading to the desired outcome. Instead of NCI's bewildering and self-defeating mandate, perhaps the best approach would be to encourage and sponsor clinical trials of the most popular CAM methods in each OCCAM category, a strategy that would prove cost-effective and conclusive.