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RE: Herbs in the Hoxsey Cancer Tonic

Ausubel K. Tempest in a tonic bottle: a bunch of weeds? *HerbalGram*. 2000; Vol 49: 32–43.

This is a chapter reprinted with permission from the book *When Healing Becomes a Crime* by Kenny Ausubel (Healing Arts Press, 2000). The editors of *HerbalGram* published this chapter to provide insights into a fascinating period in the history of American medicine, when the mere assertion that an herbal formula might have beneficial effects on cancer was dismissed by conventional health professionals *a priori*.

Ausubel begins by characterizing the prevailing attitude toward herbal medicine in America during the 1940s. “Organized medicine took a uniformly contemptuous view of botanical medicine,” he writes. Doctors who promoted natural cures for diseases such as cancer were ridiculed and even accused of fraud.

Harry Hoxsey operated a cancer clinic in Dallas, Texas in the 1930s and 1940s. Hoxsey treated his patients with Hoxsey Tonic, an oral formula that contained 9 plant extracts plus potassium iodide. In 1947, one of Hoxsey’s patients died of cancer. Her husband then sued Hoxsey, alleging that Hoxsey’s negligence was responsible for his wife’s death. The case made headlines when a jury found in favor of Hoxsey.

The controversy was far from settled, however, as Hoxsey continued to spar with the American Medical Association, led by Dr. Morris Fishbein. Finally in the 1950s, Hoxsey and his tonic were forced out of the United States. He set up a clinic in Mexico, where his assistant, nurse Mildred Nelson, continued to treat patients until her death in 1999. Both Hoxsey and Nelson claimed that their remedy achieved a cure rate of 80%, but scientific studies were never done to support this.

While researching the controversial Hoxsey story, Ausubel said he “realized with consternation that no one seemed to have actually looked objectively at the ingredients of the Hoxsey tonic.” The nine herbal ingredients listed on the label of his tonic were licorice (*Glycyrrhiza glabra*), red clover (*Trifolium pratense*), burdock root (*Arctium lappa*), stillingia root (*Stillingia sylvatica*, also called queen’s root), berberis root (barberry; *Berberis vulgaris*), poke root (*Phytolacca americana*), cascara amarga (*Acosmium panamense*), prickly ash bark (*Zanthoxylum americanum* or *Z. clava herculis*), and buckthorn bark (*Rhamnus frangula*). The tenth ingredient was potassium iodide.

Ausubel consulted with James Duke, Ph.D., a recognized expert in the field of natural plant medicines. "Duke noted that all the Hoxsey herbs have a long empirical tradition of Native American usage for cancer, several stretching back as far as three thousand years," Ausubel writes. Duke also told Ausubel that some of the plants in Hoxsey's tonic "contained chemical compounds of considerable interest to the National Cancer Institute (NCI)." Duke evaluated the safety of the herbs in Hoxsey's tonic and found that only one, poke root, was potentially toxic. However, the amount of poke root included in Hoxsey's formula was presumably well within the safe range.

Duke concluded that eight of the nine Hoxsey-herb tonic ingredients have chemical constituents containing anti-tumor activity (as shown in animal models), five have antioxidant effects, and all nine have antimicrobial activity that may be linked to cancer-fighting effects. "Duke's assessment was that the Hoxsey tonic ingredients showed very significant chemical and biological anticancer activity. The formulation might or might not actually work, but in principle it definitely merited serious investigation," Ausubel says.

All the Hoxsey herbs are also described and documented as anticancer plants in an authoritative reference book, *Plants Used Against Cancer* by Jonathan Hartwell. Hartwell was the virtual founder of the natural products testing program at the National Cancer Institute, Ausubel notes.

It is important to note that the exact ingredients in Hoxsey's formula were never confirmed. He admitted in court proceedings that he changed his formula over time, and he remained secretive about its exact composition. In addition, "botanical formulas containing multiple ingredients are famously complex, and the analytical methods of the day and understanding of plant chemistry were primitive," Ausubel notes.

In 1998, Ausubel met again with Duke to request an update on recent research regarding the Hoxsey-formula herbs. Duke accessed his extensive plant database and found abundant new data supporting the anticancer effects of the Hoxsey herbs. Especially promising data have been reported recently about the anticancer effects of red clover, burdock root, and poke root.

In the rest of the chapter, Ausubel discusses the anticancer effects of each individual ingredient in Hoxsey's formula. However, Ausubel adds an important note of caution. "Despite this encouraging data for the individual ingredients, the Hoxsey tonic has not been tested as a whole entity, and nothing is known about the complex synergy of its components." Duke agreed, and another expert, Patricia Spain Ward, reported to Congress that while many of Hoxsey's individual ingredients have proven anticancer effects, we still cannot say whether drinking his formula can cure cancer. Only human studies of the actual formula could provide a definitive answer, and such studies were never done.

—Christina Chase, MS, RD

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