

## Chinese Herbs for Cancer

Chinese herbalists have been medicating patients with tumors for over two thousand years.<sup>1</sup> In stark contrast to Western oncology concepts that undergo constant revision, Chinese medical ideas about tumor pathogenesis and herbal responses have remained largely the same over the centuries.<sup>2</sup> Still, though, Traditional Chinese Medical (TCM) approaches hold strong attraction for human oncology patients and people whose animals have cancer.<sup>3</sup> TCM practitioners shun the image of “waging war on cancer” and instead embrace the more peaceful and organic view of cancer as a journey, regarding the patient not as a battlefield but as a garden to be nurtured.<sup>4 5 6</sup>

The enormous draw of Chinese medicine and other traditional medicine practices led the World Health Organization to consider ways to best study the effectiveness and safe implementation of CAM methods in clinical practice. In response, they formulated the Traditional Medicine Strategy 2002-2005.<sup>7</sup> In the same year, the White House Commission published a Complementary and Alternative Medicine Policy.<sup>8</sup> Both organizations urged researchers to investigate the claims and practices of long-held belief systems and empirically derived treatments. The National Cancer Institute now recognizes that following the leads laid by longstanding tradition will generate higher yields than searching for cancer-fighting botanicals *de novo*.<sup>9</sup> Even the Chinese Society of Traditional Veterinary Science in Taiwan and the Asian Society of Traditional Veterinary Science have sounded calls for more research and education in Traditional Chinese Veterinary Medicine (TCVM) and, specifically, in herbal prescribing.<sup>10</sup>

The assortment of Chinese herbal treatments being promoted for animal patients with cancer is growing. Testimonials asserting reductions in tumor size in dogs who received Chinese herbs further stoke enthusiasm and hopes of finding an alternative cure.<sup>11 12 13</sup> However, rather than basing the herbal prescription on tumor type or biopsy results, herbs are matched to a patient’s disease “pattern”, which sorts patients into groups according a system based on visible signs on the body, the specifics of which are unique to TCM.<sup>14</sup>

TCM holds that tumors and cancer arise from emotional stress, overwork, poor nutrition, invasion of pathogens, and poor circulation.<sup>15 16</sup> Of these, impaired circulation ranks as perhaps the most strongly linked etiologic factors leading to cancer and metastasis.<sup>17 18</sup> From a Chinese medicine perspective, the poor circulation associated with the “blood stasis” pattern will not only deprive tissue of vital oxygen, absorbed nutrients, and immune surveillance, and it also leads to the buildup of metabolic end-products in the tissues. Modern oncology resonates with this perspective at least in part, acknowledging that the microcirculation within tumors can be abnormal and contain areas of sluggish perfusion. Furthermore, some researchers have added anticoagulants to chemotherapy agents in order to lengthen survival and prevent blood-borne metastasis.<sup>19</sup>

Others have found that elevating oxygen tension increases the radiosensitivity of tumors.<sup>20</sup>

Many of the Chinese herbs found in traditional remedies for tumors (whether benign or malignant) promote blood flow, in order to “soften and disperse” the tumor and the stagnant blood and toxins residing within it.<sup>21 22 23</sup> In the “blood stasis” (i.e., poor circulation) pattern commonly found in patients with cancer, the clinical picture includes stabbing pain, a purple tongue, dark complexion, tumor(s) and ecchymoses or petechiae.<sup>24</sup>

Although finding a purple tongue in a dog may at first seem to indicate nothing more than some Chow Chow ancestry, researchers have linked certain tongue appearances to certain disease states such as cancer.<sup>25</sup> As one researcher put it, “The tongue is a mirror reflecting the activity of the interior of the human body. The morbid conditions of viscera and bowels emerge as the alternations of the tongue so that visual inspection enables one to grasp the state of the inside of the body.”<sup>26</sup>

Not all patients with cancer will exhibit a “blood-stasis” pattern, and patients with different TCM patterns may require other herbs, according to the TCM paradigm.<sup>27 28</sup> For example, a canine patient with a fibrosarcoma who pants, acts restless, feels warm, has a bright red complexion, rapid pulse and a red, dry tongue may be receive the TCM “diagnosis” of Excess Heat, a markedly different presentation from blood stasis. Based on this determination, a “hot” dog might receive herbs that “nourish Yin” and “clear heat”, such as *Scrophularia ningpoensis* and *Scutellaria baicalensis*, in contrast to the “blood moving” herbs prescribed for patients with “blood stasis”.<sup>29</sup> Interestingly, both herbs display significant anti-angiogenic activity.<sup>30</sup> Other metaphorical categories applied to cancer patients include “yin deficiency”, “qi deficiency”, and “meridian obstruction”.<sup>31</sup>

At this point in our understanding, hundreds of thousands<sup>32</sup> of human TCM practitioners around the globe continue to employ ancient metaphors in the diagnosis and treatment of cancer.<sup>33</sup> However, none of these approaches has been systematically tested to ascertain either the reliability of the methods between examiners or the correlation between TCM and Western medical diagnoses.<sup>34</sup> To make matters worse, the degree of diagnostic consistency exhibited by TCM practitioners in terms of pattern differentiation has been typically low.<sup>35 36</sup> That is, the patterns assigned to patients frequently vary from one practitioner to the other as will the herbal prescriptions, since one leads to the other.

The question naturally arises whether the herbs themselves offer intrinsic benefits whether or not they match the patient’s individual TCM pattern. It may be that the anti-cancer benefits of ten to twelve herbs given in combination would work as well for a patient determined to have cancer as a result of blood stasis or

Excess Heat. A number of Chinese botanicals display anti-cancer activity and may be beneficial for a broad array of cancer patients, no matter what their TCM pattern indicates.<sup>37 38</sup> Herbs such as astragalus and angelica activate the immune system and display antitumor activity.<sup>39</sup> Others, like *Oldenlandia diffusa*, encourage apoptosis.<sup>40</sup> A meta-analysis evaluated the evidence from randomized trials concerning the combination of astragalus-containing Chinese herbal products with platinum-based chemotherapy. The literature analysis revealed improved survival, tumor response, and diminished toxicity as a result of the combination.<sup>41</sup>

Chinese herbal combinations usually include 8-20 plant and/or animal products. This creates obstacles in sorting out which plants or animal compounds actually confer benefits, which cause synergistic or negative herb-drug interactions, and which might raise toxicity.<sup>42</sup> Added concerns surround the inclusion of mammal, reptile, sea creature, or insect parts, as well as substances obtained illegally from endangered wildlife. Lastly, the ongoing discovery of intentional pharmaceutical adulterants and unintentional contaminants in Chinese herbs puts yet one more hurdle in place for those considering Chinese herbs for cancer patients.

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