

## HERBAL MEDICINE



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## Traditional Chinese Medicine and Infectious Disease

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(Editor's Note: Dr. Chen's article is particularly timely in light of the current concern over swine flu.)

The first reference to infectious disease appeared in *Huang Di Nei Jing* (Yellow Emperor's Inner Classic), compiled in the first or second century CE. This text discussed *re bing* (hot disease), which refers to the various types of infectious disease. The understanding of infectious disease progressed further during the Ming and Qing dynasties. Many doctors recognized that these patterns of illness were significantly different from *shang han* (cold damage) patterns, so must be diagnosed and treated differently. Three of the most influential doctors during that era contributed to a new school of thought, namely *wen bing* (warm disease).<sup>2-4</sup>

According to this new theory, warm and hot disease plagued everyone, starting "from one person to the entire household, from one household to the entire street, and from one street to the entire village." The disease first affects the exterior of the body and progresses to the interior, following the patterns of wei (defensive), qi (energy), ying (nutritive) and xue (blood) levels. Furthermore, the cause of these warm and hot disease have "no sound nor smell, and no shape nor shadow." In addition, the warm and hot disease may be transmitted from one person to another via "heaven [air-borne]" or "earth [direct contact]," and affect individuals with low immunity. 6

Many of the bitter and cold herbs and formulas used to treat these warm and hot diseases are recognized today to have remarkable antibiotic effects. Wen bing theories accurately described the origins and transmission of epidemic disease and the importance of the immune system in relationship to the pathogens. One of the fundamental concepts in traditional Chinese medicine is that "superior

medicine prevents disease, and inferior medicine treats disease."<sup>8</sup> Prevention of infectious disease is certainly no exception since bacteria and virus tend to adversely affect those who have weakened immune systems. Many herbs and formulas that tonify *wei qi* can boost the immune system. Examples include:

Classic formulas with immuno-stimulant effect<sup>10</sup>
Shi Quan Da Bu Tang (All-Inclusive Great Tonifying Decoction)<sup>11</sup>
Ren Shen Yang Ying Tang (Ginseng Decoction to Nourish the Nutritive Qi)<sup>12</sup>
Bu Zhong Yi Qi Tang (Tonify the Middle and Augment the Qi Decoction)<sup>13</sup>
Si Jun Zi Tang (Four-Gentlemen Decoction)<sup>14</sup>
Yu Ping Feng San (Jade Windscreen Powder)<sup>15</sup>

Herbs with immuno-stimulant effect<sup>16</sup> dong chong xia cao (Cordyceps)<sup>17</sup> ren shen (Radix et rhizoma ginseng)<sup>18</sup> dang shen (Radix codonopsis)<sup>19</sup> huang qi (Radix astragali)<sup>20</sup> bai zhu (Rhizoma atractylodis macrocephalae)<sup>21</sup>

Traditional Chinese medicine treats *wen bing* with heat-clearing herbs. Many of these herbs have remarkable antibiotic effects, including antibacterial and antiviral. In addition to traditional diagnosis and treatment, the following herbs and formulas more precisely target and treat infectious disease:

Classic formulas with antibiotic effect<sup>23</sup>

Yin Qiao San (Honeysuckle and Forsythia Powder)<sup>24</sup>

Huang Lian Jie Du Tang (Coptis Decoction to Relieve Toxicity)<sup>25</sup>

Long Dan Xie Gan Tang (Gentiana Decoction to Drain the Liver)<sup>26</sup>

Pu Ji Xiao Du Yin (Universal Benefit Decoction to Eliminate Toxin)<sup>27</sup>

Ba Zheng San (Eight-Herb Powder for Rectification)<sup>28</sup>

Herbs with antibacterial effect<sup>29</sup>
bai tou weng (Radix pulsatillae)<sup>30</sup>
chuan xin lian (Herba andrographis)<sup>31</sup>
huang lian (Rhizoma coptidis)<sup>32,33</sup>
hu zhang (Rhizoma et radix polygoni cuspidati)<sup>34</sup>
huang bo (Cortex phellodendri chinensis)<sup>35</sup>
huang qin (Radix scutellariae)<sup>36</sup>
ku shen (Radix sophorae flavescentis)<sup>37</sup>
pu gong ying (Herba taraxaci)<sup>38</sup>
shan dou gen (Radix et rhizoma sophorae tonkinensis)<sup>39</sup>

Herbs with antiviral effect ban lan gen (Radix isatidis)<sup>40</sup> da qing ye (Folium isatidis)<sup>41</sup> jin yin hua (Flos lonicerae japonicae)<sup>42</sup> lian qiao (Fructus forsythiae)<sup>43</sup> ye ju hua (Flos chrysanthemi Indici)<sup>44</sup>

In Western medicine, the discovery of antibiotic drugs is one of the major breakthroughs in modern

medicine. It enables doctors to effectively treat many different types of infections. Unfortunately, decades of abuse and misuse have led to growing problems of bacterial mutation and resistance. Many of these "super bugs" can only be treated with the newest and most potent antibiotic drugs. Unfortunately, many of them have potent side effects as well. The key points are to select the correct antibiotic drug with least potential side effects and make sure the patient finishes the entire course of therapy.

In traditional Chinese medicine, herbs and herbal formulas are also extremely effective for treatment of various infections. In fact, most modern pharmaceutical drugs were originally derived from natural sources, including penicillin (the oldest antibiotic) and gentimicin (one of the most potent). One of the main benefits of using herbs is their wide spectrum of antibiotic effect, with indications for bacterial and viral infections. Furthermore, most of these herbs are extremely safe, and do not have the same harsh side effects as drugs.

In summary, both drugs and herbs are effective to treat mild to moderate cases of bacterial infections. However, because drugs are more immediately potent and can be prescribed with more laboratory precision (via cultures and sensitivity tests), they are more appropriate for life-threatening infections, such as meningitis or encephalitis, or mutant strains of bacteria, such as beta-lactam-resistant *Staphylococcus aureus* (MRSA). On the other hand, use of herbs is far more effective than drugs for treating certain viral infections, such as the common cold and influenza. Most importantly, herbs are much gentler to the body and safer than drugs. In other words, herbs treat infection without damaging the patient's underlying constitution. This allows the patient to recover faster and become more resistant to secondary or re-current infections.

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