

# Western Use of Chinese Herbs for Common Urologic Conditions

**Eric Yarnell, ND, RH (AHG),  
and Kathy Abascal, BS, JD, RH (AHG)**

## Abstract

Chinese herbal options for urinary-tract infections (UTIs), benign prostatic hyperplasia (BPH), and chronic prostatitis are reviewed. Chinese equivalents of these conditions are described, and various Chinese herbs and formulas used to treat the conditions are discussed.

Two Marvel Powder (*Èr Miāo Sǎn*) and its components, *Phellodendron amurense* (Amur corktree, *huáng bǎi*) and *Atractylodes lancea* (black atractylodes, *cāng zhú*) are discussed with respect to treating infectious cystitis. Eight Herb Powder for Rectification (*Bā Zhèng Sǎn*) is also discussed for helping patients who have UTIs. Ephedra, Aconite, and Asarum Formula (*Má huáng fù zǐ xì xīn tāng*; *mao-bushi-sasishin-tō* in Japanese) is also mentioned for addressing antibiotic-resistant UTIs. Enrich the Kidneys and Open the Gates Pill (*Zī Shèn Tōng Guān Wán*), *Saxifraga stolonifera* (strawberry saxifrage), and *Ganoderma lucidum* (*língzhī*, reishi, mannentake) are discussed with respect to their roles in helping patients who have BPH.

Particular attention is given to differentiating subtypes of chronic prostatitis, and some evidence is provided showing that this helps to choose the proper therapy, at least as far as Chinese herbal formulas are concerned. Four formulas (two traditional and two modern) are discussed in detail for various types of chronic prostatitis: (1) Eight Treasure Powder or Decoction (*Bā Zhēn Sǎn*); (2) Reaping Mixture (*Ài Kě Hé Jì*); (3) Bupleurum Powder to Dredge the Liver (*Chái Hú Shū Gān Sǎn*); and (4) Black Colt Capsule (*Xuán Jū Jiāo Náng*). Finally, Rehmannia Eight (*Bā Wèi Dì Huáng Wán*; *Hachimi-jio-gan* in Japanese) is discussed as an adjunct to trimethoprim-sulfamethoxazole antibiotics.

## Introduction

Three common urologic conditions, urinary-tract infection (UTI), benign prostatic hyperplasia (BPH), and chronic prostatitis, are clinical problems in the developed and developing

worlds.<sup>1</sup> Despite the availability of medications for treating these conditions, they can become recurrent or chronic and sometimes are not well-managed by these medications. Another issue is that a substantial portion of patients experience adverse effects from the medications, although most of these effects are minor. In some cases, surgery becomes necessary—an expensive option that has its own risks. Therefore, additional preventive and therapeutic options are needed for these conditions.

Traditional Chinese Medicine (TCM) has been developing herbal treatments for patients with these three conditions for thousands of years. Although not referred to by their current Western pathologic names, the symptom complexes of these conditions have all been recognized since antiquity, and treatments have been developed to help relieve patients who have these problems. This article reviews some treatments that have survived to modern times and that have been the subject of clinical trials, at least beginning the process of scientifically validating their historical value.

The current authors believe that, in general, prevention and treatment with herbs should begin with local resources and not exotic herbs shipped from distant geographical regions. Nonetheless, information about exotic herbs is valuable for two reasons. First, it is beneficial to have herbal backup treatments for those occasional cases when local herbs do not work. Second, it shows that there is scientific support for the efficacy and safety of yet another group of herbs for another set of conditions, contradicting the impression that all herbal treatment successes are anecdotal. When selecting Chinese herbs, it is important to know their sources and to confirm that these herbs have been tested for identity and purity, given that there are known problems with contamination and adulteration with some products and some companies.

Whenever possible the complete Mandarin Chinese names are provided including tones, but, unfortunately, this information was not always available for every formula or herb.

## Urinary-Tract Infections

The syndrome that most closely resembles a UTI in Chinese medicine is Damp-Heat in the Lower *Jiao* (also called the Lower Burner or Lower Heater). The concept of *Jiao* preceded the later Chinese conception known as *Zang Fu* organs and is mentioned in the > 2000 year-old core text of Chinese medicine, the *Yellow Emperor's Inner Cannon*, compiled sometime between 475 BC and 220 AD. None of these descriptions corresponds exactly to anatomical organs. The Lower *Jiao* includes the *Zang Fu* organs of the Small and Large Intestines, the Kidneys, and the Urinary Bladder. The symptoms of Lower *Jiao* Damp-Heat include urinary urgency and frequency, pain on urination, fever, shivering, and lower abdominal pain.

### Two Marvel Powder

Two Marvel Powder (*Èr Miāo Sǎn*) is a common formula used for treating UTIs. It contains 9 g each of two herbs, *Phellodendron amurense* (Amur corktree, *huáng bǎi*) dry-fried bark and *Atractylodes lancea* (black atractylodes, *cāng zhú*) fried prepared root. Prepared black atractylodes root is usually wild-crafted (unlike cultivated white atractylodes or *bái zhú*, *Atractylodes macrocephala*). After harvesting, atractylodes root is soaked in rice water and then steamed until it turns black.

The formula was first described in the text *Essential Teachings of (Zhu) Dan-Xi (Dān Xī Xīn Fǎ)* by Zhū Zhèn-Hěng, also known as Zhū Dān-Xī, written in 1481 AD. The two herbs are considered to be somewhat opposite one another, as Amur corktree is bitter and cooling while black atractylodes is pungent and warming. In truth, the formula was originally recommended to be taken with fresh *Zingiber officinale* (ginger) rhizome juice, so it was not actually a two-herb formula. Unfortunately, clinical trials have not been conducted to confirm the traditional use of this formula for patients with UTI, but the formula does seem to be clinically useful.

Amur corktree contains many antimicrobial alkaloids, including berberine and jatrorrhizine; yet, surprisingly, in vitro, the herb was not active against *Escherichia coli*, the most common pathogen involved in UTIs.<sup>2</sup> However, a crude ethanol extract of black atractylodes was found to be active against *E. coli* in vitro.<sup>3</sup> The polyacetylene compound atractylodin was identified as a significant contributor to this antibacterial activity.<sup>4</sup> Various semisynthetic derivatives of this compound have now been created that produce even stronger anti-*E. coli* activity.<sup>5</sup>

Amur corktree has well-documented inflammation-modulating properties.<sup>6</sup> It inhibits nuclear factor- $\kappa$ B, a major inflammatory pathway.<sup>7</sup> In a mouse model, extracts of Amur corktree and its close cousin, *Phellodendron chinensis* (corktree), suppressed inflammatory mediators such as cyclo-oxygenase-2, tumor necrosis factor- $\alpha$  (TNF- $\alpha$ , and interleukins [ILs] 1 $\beta$  and 6.<sup>8</sup>

Such effects are important, because there is evidence from a double-blinded, randomized trial that, in women with uncomplicated UTIs, the anti-inflammatory drug ibuprofen is just as effective as, if not more so, than the antibiotic ciprofloxacin.<sup>9</sup> The theory is that most UTIs are actually self-limiting but the symptoms are sufficiently uncomfortable that most women seek treatment before their bodies have time to eliminate the infection; giving more time by alleviating the symptoms may well allow these patient's bodies to clear the infection naturally. This has the potentially huge benefit of avoiding the creation of antibiotic resistance by overprescription of antibiotics and of avoiding recurrent UTIs caused by antibiotic damage to the gut flora, which can result in the overgrowth of more uropathogens that can, in turn, reseed the bladder in the future.<sup>10</sup>

Black atractylodes contains complex carbohydrates that have been shown repeatedly to modulate the immune system beneficially in preclinical studies.<sup>11,12</sup> These studies have focused on effects on the intestinal immune system, which is relevant to UTI in two ways: (1) effects on immune cells in the gut will lead to systemic effects as those cells leave the gut and circulate through the body; and (2) responses to uropathogens in the gut may inform immune responses to these pathogens when they appear in the urinary tract.

**Table 1. Ingredients of Eight Herb Powder for Rectification (Eight Corrections Powder)**

Latin name	Chinese name	English name	Part used	Amount in formula <sup>a</sup>
<i>Akebia trifoliata</i>	Mù tōng	Akebia	Stem	3–6 g
<i>Plantago asiatica</i>	Chē qián zǐ	Asian plantain	Seed	9–15 g
<i>Dianthus chinensis</i>	Qú mài	Dianthus, Chinese pink	Aerial parts	6–12 g
Talc	Huá shí	Talc	Mineral	12–30 g
<i>Polygonum aviculare</i>	Biǎn xù	Knotweed	Aerial parts	6–12 g
<i>Gardenia jasminoides</i>	Zhī zǐ	Gardenia, cape jasmine	Fruit <sup>b</sup>	3–9 g
<i>Glycyrrhiza uralensis</i>	Gān cǎo shāo	Licorice	Unprepared rootlets or root tips	3–9 g
<i>Rheum palmatum</i>	Dà huáng	Rhubarb	Prepared root	3–6 g

<sup>a</sup>Doses listed are for the decoction version of the formula (the more common modern form in which it is used). For powder, equal parts are used.

<sup>b</sup>Older sources indicate that the charred fruit (*shān zhī zǐ*) should be used to maximize its styptic effects, but more recent studies apparently show this is not as effective as the uncharred fruit (according to Bensky D, Clavey S, Stöger E, Gamble A. Chinese Herbal Medicine Materia Medica, 3rd ed. Seattle: Eastland Press, 2004).

A study in rats found that giving Two Marvel Powder led to higher levels of several berberine-type alkaloid metabolites in the animals' urine than when Amur corktree was given by itself.<sup>13</sup> This suggests that black atractylodes has some ability to increase absorption or inhibit excretion of Amur corktree's constituents and/or their metabolites. This lends some credence to the utility of combining these two herbs rather than using either one in isolation. Human studies comparing the formula to the herbs given in isolate are needed to confirm this.

#### *Eight Herb Powder for Rectification*

Eight Herb Powder for Rectification (*Bā Zhèng Sǎn*, *Has-syosan* in Japanese) originated in the *Imperial Grace Formulary of the Tai Ping Era* (*Tài Ping Huì Mǐn Hé Jì Jú Fāng*), written by the Imperial Medical Bureau in 1107 AD (revised in 1151 AD). This source is one of the earliest known official formularies established by a national dispensary in the world.<sup>14</sup>

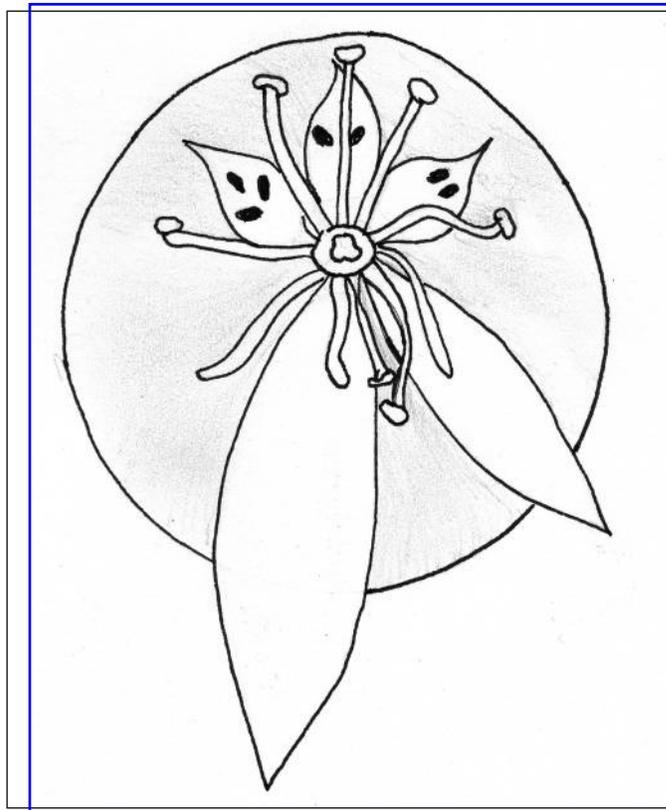
The herbs usually found in the formula are listed in Table 1. The usual dose of the decoction is 1 cup t.i.d. of the total amount listed in the Table, divided in three equal parts. The usual dose of powder is 5 g t.i.d., often decocting each dose in water with 1 g of *Juncus effusus* (juncus, *dēng xīn cǎo*) pith. If the formula

### *In a case series, Eight Herb Powder for Rectification cleared UTIs in 72 patients.*

is not effective immediately, or if desired, the addition of more-intensely antimicrobial herbs—such as 9–12 g of phellodendron and 6 g of *Coptis chinensis* (coptis, goldthread, *huáng lián*) root—are recommended.<sup>15</sup> These two herbs have also been shown, in rats, to be as potent for reducing inflammation as dexamethasone and celecoxib.<sup>16</sup> It is critically important that the *Akebia trifoliata* used in this formula under the Chinese name *mù tōng* not be confused with the nephrotoxic herb *Aristolochia* spp., sometimes also called by this same common name.

Numerous case series have appeared in the Chinese medical literature (and thus some detail is lacking because of the current authors' inability to access the full texts of these articles) about the efficacy of Eight Herb Powder for Rectification and slight variations of this formula for patients with UTIs. Clinical symptoms, including fever, were cleared effectively in one series of 72 patients with UTIs.<sup>17</sup>

In another case series, 30 patients with UTIs were treated with a version of the formula that also included *Astragalus membranaceus* (astragalus, *huáng qí*) root, *Dioscorea opposita* (Chinese yam, *shān yào*) tuber, *Eucommia ulmoides* (eucommia, *dù zhòng*) bark, *Benincasa hispida* (wintermelon, *dōng guā pí*) rind, *Glechoma longituba* (longtube ground ivy, *lián qián cǎo*) leaf, and *Lonicera japonica* (honeysuckle, *jīn yīn huā*) flower.<sup>18</sup> One dose was given daily of the decocted formula. A control group of 28 patients were treated with intravenous ciprofloxacin daily. Both treatments were given for



*Saxifraga stolonifera* (strawberry saxifrage) flower. Drawing © 2014 by Kathy Abascal, BS, JD, RH (AHG).

5 days. There was no difference in efficacy between the two groups. More-rigorous controlled trials are warranted to confirm the efficacy of this promising, time-honored formula.

#### *Ephedra, Aconite, and Asarum Formula*

Ephedra, Aconite, and Asarum Formula (*Má huáng fù zǐ xī xīn tāng*, called *mao-bushi-sasishin-tō* in Japanese) was studied for concomitant antibiotic-resistant UTIs and respiratory infections in 7 elderly women.<sup>19</sup> This formula contains *Ephedra sinica* (Chinese ephedra) stem, *Aconitum carmichaeli* (Sichuan aconite) prepared lateral root, and *Asarum* spp. (Chinese wild ginger) root. All 7 subjects had been taking ofloxacin for 3 days with no abatement of fever. The antibiotics were stopped and 600 mg per day of the Ephedra, Aconite, and Asarum Formula were started for 7 days. The patients' symptoms and fevers were reduced over the course of treatment, and serum C-reactive protein levels fell to normal in all but 1 patient. This formula could be a second-line treatment for patients with serious antibiotic-resistant UTIs. It must be used with caution because of the potential for *Aconitum* to cause cardiac arrhythmias; this explains the low dose used in the trial.

### **Benign Prostatic Hyperplasia**

Benign prostatic hyperplasia (BPH) is not clearly described by any single syndrome in Chinese medicine. Kidney Yang Deficiency, Dampness in the Lower *Jiao*, and Blood Stasis are

three of the most common descriptions applied to what would be recognized as BPH symptoms in Western medicine. Kidney *Yang* Deficiency is a syndrome of aging to some degree (mirroring the hormonal changes in aging also associated with BPH), with difficulty in urination, frequent urination, enuresis, and urinary incontinence as common symptoms.

In the Western view of BPH, there are two major problems: (1) overgrowth of smooth muscle-containing connective tissue in the prostate and (2) overgrowth of the extremely hormone-sensitive secretory tissue. Spasm of the excessive smooth-muscle cells is associated with the irritative symptoms of BPH (frequency, urgency, nocturia) while sufficiently large cell mass related to more secretory tissue—and possibly also connective tissue—results in obstructive symptoms (hesitancy, weak stream, urine retention).

Spasmolytics that can relax the smooth muscle can help relieve the first set of symptoms while hormone modulators can help relieve the second set of symptoms. Chinese herbal medicines exist that do both and thus are potentially of benefit in many ways.

#### *Enrich the Kidneys and Open the Gates Pill*

Enrich the Kidneys and Open the Gates Pill (*Zi Shen Tong Guan Wan*, often shortened to just *Zi Shen Wan*) is a formula that originated in the *Secrets from the Orchid Chamber* (*Lan Shi Mi Cang*) by Li Gǎo (also known as *Li Dong-Yuan*) in 1336 AD. The formula contains *Anemarrhena aspheloides* (anemarrhena, *zhī mǔ*) rhizome, *Cinnamomum cassia* (cassia, *ròu guī*) bark, and phellodendron that is historically used for BPH.<sup>20</sup> In rats with induced BPH, *Zi Shen Wan* has been shown to reduce prostate weight (to a degree similar to finasteride).<sup>21</sup> This formula has also been known to inhibit vascular endothelial and basic fibroblast growth-factor levels in the prostate, both known contributors to prostatic hyperplasia.<sup>21</sup> Serum dihydrotestosterone levels fell, while serum testosterone levels stayed normal, in the rats. This confirms another study showing that anemarrhena has 5 $\alpha$ -reductase-inhibiting properties.<sup>22</sup> Phellodendron by itself inhibited prostate contractility in vitro.<sup>23</sup> This formula and its components are worth studying further as treatments for patients with BPH. The formula has also been shown to be effective in a case study in elderly women with UTIs.<sup>24</sup>

#### *Strawberry Saxifrage*

*Saxifraga stolonifera* (strawberry saxifrage; part used not stated) is native to China but does not appear to be used extensively. One double-blinded trial compared this herb, at a claimed dose of 2 mg per day, to terazosin in 61 Chinese men with BPH.<sup>25</sup> However, this dose is surely inaccurate as it is extremely low, even for an extract, and it is more likely that the researchers meant either 200 mg or 2 g. After 8 weeks, terazosin was significantly more effective than strawberry saxifrage for decreasing BPH symptoms. However, the two treatments had similar effects on a quality-of-life measurement and for improving urine flow rates. This intriguing result warrants further research, particularly given the herb's good safety record.

The association of Blood Stasis with BPH is particularly intriguing, because modern research is starting to show scientific support for this link. Varicosities in the internal spermatic veins can create sufficient back-pressure in the pampiniform plexus to back blood up through connecting deferential veins into the prostatic venous plexus. This results in massive local overdosing of testosterone in the prostate, which may cause BPH and prostate cancer.<sup>26,27</sup> This theory indicates that venous tonic herbs (and Blood Movers as they are called in Chinese medicine) may be helpful for preventing and treating BPH.

#### *Reishi Mushroom*

*Ganoderma lucidum* mushroom is known as *língzhī* (“supernatural mushroom”) in Mandarin Chinese and *reishi* (or *mannentake*) in Japanese; *reishi* has become the English common name as well. This is a very common mushroom of the northern forests around the globe. The very hard, woody, red-black, shiny fruiting body is traditionally used (ground into powder), although research continues to suggest the mycelium and spores are equally effective.<sup>28</sup> There is actually no evidence of ancient use of this mushroom as a medicine, but in modern Chinese medicine, this use is fairly common.

Two double-blinded, randomized clinical trials have been conducted on *reishi* for men with BPH. In one trial, 50 men were given either *ganoderma* or placebo for 8 weeks.<sup>29</sup> The *ganoderma* was a 30% ethanol extract dosed at just 6 mg per day, which seems to be an extremely low dose. Nevertheless, *reishi* was more effective than placebo for reducing urinary symptoms without affecting prostate size, peak flow, or serum prostate-specific antigen. There were no differences in adverse effects between the groups, and all of these effects were mild. A similar trial ran for 12 weeks with 88 men, producing the same results.<sup>30</sup> The mechanism of action is unclear; some rodent studies suggest that this mushroom produces antiandrogen activity.<sup>31</sup> More-typical doses are 500–1000 mg b.i.d.–t.i.d. of encapsulated powder. It can aggravate an already inflamed digestive tract, but otherwise is very safe.

## Chronic Prostatitis

Chronic prostatitis is most similar to syndromes of Blood Stagnation in the pelvic region, Stagnant Liver *Qi*, or Damp-Heat in the Lower *Jiao*. Chinese medicine posits that, depending on the constitution of the patient and the patient's presenting symptoms, different medicines should be used. While, superficially, this appears to be very different from the Western medical approach of diagnosing a disease and treating everyone with that disease more-or-less the same way, it is actually not that distinct. The truth is that the term chronic prostatitis is now understood to refer to many conditions, and that patients presenting with the same symptoms (pelvic pain predominantly) can have chronic prostatitis as a result of interstitial cystitis, pelvic-floor dysfunction/trigger point problems, irritable bowel syndrome/dyspepsia functional motility syndrome, true infection, or idiopathic inflammation in the prostate.<sup>32</sup> Differ-

**Table 2. Differentiation of Chronic Prostatitis Types with Associated Chinese Herbal Treatment**

Chinese syndrome name	Key features of syndrome	Recommended treatments
Damp-Heat in Lower <i>Jiao</i> <sup>a</sup>	Frequency, urgency, burning on urination; turbid or foul urine; perineal, scrotal, or lumbar pain; bacteriuria; and/or pyuria	Eight Treasure Powder ( <i>Bā Zhēn Sǎn</i> ) <sup>b</sup> Gentian Decoction to Drain the Liver from Precious Mirror ( <i>Lóng Dǎn Xiè Gān Tāng</i> )
Liver <i>Qi</i> Stagnation	Pelvic-floor hypertonicity, pelvic-floor muscle spasms, & pelvic-floor and/or perineal trigger points (may also be anxious)	Reaping Mixture ( <i>Ài Kě Hé Ji</i> ) <sup>b</sup> Bupleurum Powder to Dredge the Liver ( <i>Chái Hú Shū Gān Sǎn</i> ) <sup>b</sup> Rambling Powder ( <i>Xiāo Yáo Sǎn</i> )
Blood Stagnation in pelvis (caused by <i>Qi</i> Deficiency not driving the Blood)	<i>Qi</i> Deficiency: Fatigue; brain fog; cold/can't get warm; poor appetite; depression; or anxiety <i>Blood Stagnation</i> : vague dull pain; varicose veins; & indigestion	<i>Qi</i> tonics, such as <i>Panax ginseng</i> ( <i>rén shēn</i> ), <i>Codonopsis pilosula</i> ( <i>dǎng shēn</i> ), or <i>Astragalus membranaceus</i> . Black Colt Capsule ( <i>Xuán Jū Jiāo Náng</i> ) <sup>b</sup> Tokoro Drink to Separate the Clear from <i>Medical Revelations</i> ( <i>Bì Xiè Fēn Qīng Yīn Yī Xué Xīn Wù</i> )
Kidney <i>Yang</i> Deficiency	Erectile dysfunction, cold, low energy, depression & pale, turbid urine	Cinnamon, Aconite, & Rehmannia Powder ( <i>Guì Fù Dì Huáng Wán</i> )

<sup>a</sup>If this has a sudden onset with fever, it represents acute prostatitis which is more commonly treated with *Long Dan Xie Gan Tang* with *Bei Xie* and *Bai Jiang Cao*, in combination with antibiotics if symptoms are not reduced within 24 hours of initiating treatment.

<sup>b</sup>This is discussed in more depth in the text.

Sources: Liu CY, Tseng A, Yang S. Chinese Herbal Medicine: Modern Applications of Traditional Formulas. Boca Raton, FL: CRC Press, 2005; Lu HC. Traditional Chinese Medicine: An Authoritative and Comprehensive Guide. Laguna Beach, CA: Basic Health Publications, 2005; Ma WG, Jia JM. The effects and prospects of the integration of Traditional Chinese Medicine and Western medicine on andrology in China. *Asian J Androl* 2011;13:592–595; Yin GG, Liu ZH. *Advanced Modern Chinese Acupuncture Therapy*. Beijing: New World Press, 1999.

ent therapies are needed to help patients recover from each of these distinct syndromes.

Many studies have researched the effects of different herbal formulas adapted to the specific Chinese syndromes with which patients present. Going into detail about most of these studies is beyond the scope of this article, but an attempt to summarize them and give some sense of an Eastern translation of the ideas included is provided in Table 2.

Unfortunately, two meta-analyses of studies of Chinese herbal formulas for patients with chronic prostatitis have found that the low quality of the trials conducted to date and publication bias made it impossible to know if individualized Chinese herbal prescriptions are effective.<sup>33,34</sup>

Note that there are competing views of how to differentiate and treat chronic prostatitis in Chinese medicine; the items presented here are an attempt to harmonize multiple differing points of view.

#### *Eight Treasure Powder or Decoction*

Eight Treasure Powder or Decoction (*Bā Zhēn Sǎn* or *Bā Zhēn Tāng*) originated in the *Experiential Formulas from the Auspicious Bamboo Hall* (*Ruì Zhù Táng Jīng Yàn Fāng*) by Shā-Tú Mù-Sū, written in 1326 AD. This decoction's ingredients are listed in Table 3. Often, *Codonopsis pilosula* (*dǎng shēn*) is substituted for Asian ginseng in this formula at twice the dose because of the high cost of Asian ginseng. The typi-

**Table 3. Ingredients of Eight Treasure Powder/Decoction**

Latin name	Chinese name	English name	Part used	Amount in formula (powder/decoction)
<i>Panax ginseng</i>	<i>Rén shēn</i>	Asian ginseng	Root	30 g (6–9 g)
<i>Atractylodes macrocephala</i>	<i>Bái zhú</i>	White atractylodes	Prepared root	30 g (9–12 g)
<i>Wolfiporia extensa</i>	<i>Fú líng</i>	Hoelen	Sclerotium	30 g (12–15 g)
<i>Glycyrrhiza uralensis</i>	<i>Zhì gān cǎo</i>	Chinese licorice	Prepared root	30 g (3–6 g)
<i>Rehmannia glutinosa</i>	<i>Shú dì huáng</i>	Chinese foxglove	Prepared root	30 g (15–18 g)
<i>Paeonia lactiflora</i>	<i>Bái sháo</i>	White peony	Root without bark	30 g (12–15 g)
<i>Angelica sinensis</i>	<i>Dāng guī</i>	Dong quai	Prepared root	30 g (12–15 g)
<i>Ligusticum chuanxiong</i>	<i>Chuān xiōng</i>	Szechuan lovage	Root	30 g (6–9 g)

Source: Ref. 44.

**Table 4. Ingredients of Bupleurum Powder to Dredge the Liver**

Latin name	Chinese name	English name	Part used	Amount in formula
<i>Citrus reticulata</i>	Cù chǎo chén pí	Tangerine	Vinegar-fried peel	6 g
<i>Bupleurum falcatum</i>	Chái hú	Thorowax	Root	6 g
<i>Ligusticum chuanyong</i>	Chuān xiōng	Szechuan lovage	Root	4.5 g
<i>Citrus aurantium</i>	Zhǐ ké	Bitter orange	Dry-fried fruit	4.5 g
<i>Paeonia lactiflora</i>	Shāo yào	Red or white peony	Root with or without bark	4.5 g
<i>Cyperus rotundus</i>	Xiāng fù	Cyperus, nutgrass	Rhizome	4.5 g
<i>Glycyrrhiza uralensis</i>	Zhì gān cǎo	Chinese licorice	Prepared root	1.5 g

Source: Ref. 44.

cal dose of the powder is to mix 9 g in hot water to be drunk three times per day. The typical dose of the decoction is for the patient to divide the amounts given in Table 3 into three equal parts, decoct them, and drink 1 cup, three times per day.

Although Eight Treasure Powder is primarily seen as a *Qi* and Blood tonic traditionally, it has been shown to be effective for patients with chronic prostatitis who have Damp-Heat patterns in case series. One such series involved 86 men and found good reduction of symptoms with treatment using the powdered form (exact dose unclear).<sup>35</sup> A randomized, double-blinded trial involving 72 men showed that a modified version of Eight Treasure Powder was not superior to the original formula in terms of symptom reduction as measured by the National Institutes of Health Chronic Prostatitis Symptom Inventory (NIH-CPSI).<sup>36</sup> Another study showed that this formula could reduce inflammatory markers (IL-1 and TNF- $\alpha$ ) in expressed prostatic secretions of men with chronic bacterial prostatitis.<sup>37</sup>

#### Reaping Mixture

Another double-blinded trial randomized 218 men with chronic nonbacterial prostatitis to one of three formulas or placebo without regard to their traditional Chinese syndromes.<sup>38</sup> One group received Eight Treasure Powder, another received Reaping Mixture (Ài Kě Hé Jì, for smoothing Liver *Qi*), and a third received *Qian Lie Xian Yan* (no details could be obtained on this formula, except that it was stated to be a formula for promoting blood circulation). Reaping Mixture was found to be significantly superior to any of the other formulas or placebo, based on improvements in NIH-CPSI scores. Reaping Mixture contains *Bupleurum falcatum* (thorowax, *chái hú*) root, white peony root without bark, *Citrus aurantium* (bitter orange, *zhǐ ké*) peel, Szechuan lovage, *Lindera aggregata* (lindera, *wū yào*) root, and Chinese licorice root. This study is interesting in that it suggests that pelvic-floor dysfunction was very common in men with chronic prostatitis (as a formula that is mainly for that problem, this formula was quite helpful), and also that assigning patients randomly to treatment as opposed to based on their Chinese syndrome may have influenced the outcome of the study.

Reaping Mixture combined with finasteride was compared to finasteride alone in 60 men with chronic prostatitis with Liver *Qi* Stagnation Pattern for 2 weeks.<sup>39</sup> Treatment as-

signment was random. At the end of the trial, all men had prostatectomies. Inflammatory infiltrates in the prostates of men who were given Reaping Mixture with finasteride were significantly lower than in those who were given finasteride alone. These results support that Reaping Mixture has an inflammation-modulating action that is apparently independent of any effect on pelvic-floor function. There is also support for findings in mice that the formula is both inflammation-modulating and analgesic.<sup>40</sup> In vitro, Reaping Mixture has also been shown to relax smooth muscle in the bladder and prostate by inhibiting  $\alpha 1$  adrenergic and muscarinic receptors.<sup>41</sup> Unfortunately, no dosing information could be found for Reaping Mixture.

#### Bupleurum Powder to Dredge the Liver

Bupleurum Powder to Dredge the Liver (*Chái Hú Shū Gān Sǎn*) was first described in *Indispensable Tools for Pattern Treatment (Zhèng Zhì Zhūn Shéng)* by Wáng Kěn-Tāng in 1602 AD. This powder's ingredients are listed in Table 4. There is a debate about whether to use red or white peony in the formula; either seems to be suitable.

Bupleurum Powder to Dredge the Liver has been studied better as a treatment for chronic gastritis.<sup>42</sup> This formula has also been investigated for its effect on chronic prostatitis. In one case series, the formula proved to be effective for relieving symptoms in men with chronic nonbacterial prostatitis.<sup>43</sup> The formula is considered to be a classic choice for pain that relapses and remits, which is very typical of the waxing-waning nature of chronic prostatitis.<sup>44</sup> The usual dose is 9 g, three times per day, usually mixed with hot water.

#### Black Colt Capsule

Another formula that has been fairly extensively studied in modern times for chronic prostatitis and other men's health concerns—but not discussed in many traditional texts—is Black Colt Capsule (*Xuán Jū Jiāo Náng*). The origin of this formula is unknown. This formula contains as a main ingredient a species of black ants (*Polyrhachis vicina*)—the “black colts” of the formula's name. A close relative of this ant, *Polyrhachis lamellidens*, has been shown to be inflammation-modulating and analgesic in rats.<sup>45</sup> The other ingredients of the formula are *Epimedium brevicornum*

(horny goat weed, *yin yang huò*), *Lycium chinense* (goji, *gǒu qǐ zǐ*) fruit, and *Cnidium monnieri* (cnidium, *shé chuāng zǐ*) seed. The usual dose of Black Colt Capsules is 500–1000 mg b.i.d.–t.i.d.

In a clinical trial of chronic prostatitis associated with Kidney Yang Deficiency, 120 men were randomized to receive either Black Colt Capsule or the  $\alpha$ -blocker drug doxazosin.<sup>46</sup> Black Colt Capsule was significantly more effective than doxazosin for relieving prostatitis symptoms as well as improving erectile function. A similar trial randomized 242 men with chronic nonbacterial prostatitis to receive either Black Colt Capsule and tamsulosin or quinolone antibiotics with tamsulosin for 6 months.<sup>47</sup> The herbal formula with tamsulosin was significantly more effective for relieving symptoms as assessed by the NIH-CPSI and at reducing complications, compared to the antibiotics/tamsulosin group.

Another trial randomized 132 patients with chronic prostatitis to take either levofloxacin for 4–6 weeks and tamsulosin for 2 months or the same drugs plus Black Colt Capsule for 2 months.<sup>48</sup> Both groups had significantly reduced symptoms based on the NIH-CPSI, compared to baseline. Improvement in erectile function was significantly better (nearly 3 times better in fact) in the group including Black Colt Capsule versus drugs only. There were no serious treatment-related adverse effects. A similar trial comparing Black Colt Capsules to antibiotics in 90 patients with chronic nonbacterial prostatitis found similar results: The herbs reduced symptoms and improved erectile function significantly better than antibiotics did.<sup>49</sup>

### Rehmannia Eight

Finally, the formula Rehmannia Eight (*Bā Wèi Dì Huáng Wán*), known as *Hachimi-jio-gan* in Japanese, has been studied as an adjunct to antibiotics in patients with chronic prostatitis. It contains Chinese foxglove, *Cornus officinalis* (Asiatic cornelian cherry, *shān zhū yú*) fruit, *Dioscorea opposita* (Chinese yam, *shān yào*) root, *Paeonia suffruticosa* (tree peony, *mǔ dān pí*) root bark, hoelen, *Alisma orientalis* (water plantain, *zé xiè*) rhizome, *Schisandra chinensis* (schisandra, *wǔ wèi zǐ*) fruit, and astragalus honey-fried root. The usual dose is 6 g b.i.d. Combining Rehmannia Eight with trimethoprim-sulfamethoxazole (TMP-SX) was significantly more effective than TMP-SX alone for relieving symptoms in men with chronic prostatitis.<sup>50</sup> It was unclear if the study was randomized or blinded.

## Conclusion

Chinese medicine offers some interesting therapeutic alternatives for patients with UTIs, BPH or chronic prostatitis. Much of the clinical research that has been conducted, unfortunately, is of low quality, and the full details are only available in Chinese, and, even then, the Chinese full text is rarely readily available. Nevertheless, these trials do offer preliminary support for a range of herbs and herbal formulas for these three common urologic problems; these herbs are worthwhile studying further. ■

## References

1. Yarnell E. Natural Approach to Urology and Men's Health, 2nd ed. Wenatchee, WA: Wild Brilliance Press, 2014;in press.
2. Shan B, Cai YZ, Brooks JD, Corke H. The in vitro antibacterial activity of dietary spice and medicinal herb extracts. *Int J Food Microbiol* 2007;117:112–119.
3. Wat CK, Johns T, Towers GHN. Phototoxic and antibiotic activities of plants of the asteraceae used in folk medicine. *J Ethnopharmacol* 1980;2:279–290.
4. Fiandanese V, Botalico D, Marchese G, Punzi A. Synthesis of naturally occurring polyacetelylenes via a bis-silylated diyne. *Tetrahedron* 2006;62:5126–5132.
5. Chen YJ, Wu YX, Wang HX, Gao K. A new 9-nor-atractylodin from *Atractylodes lancea* and the antibacterial activity of the atractylodin derivatives. *Fitoterapia* 2012;83:199–203.
6. Mori H, Fuchigami M, Inoue N, et al. Principle of the bark of *Phellodendron amurense* to suppress the cellular immune response. *Planta Med* 1994;60:445–449.
7. Choi YY, Kim MH, Han JM, et al. The anti-inflammatory potential of cortex *Phellodendron* in vivo and in vitro: Down-regulation of NO and iNOS through suppression of NF- $\kappa$ B and MAPK activation. *Int Immunopharmacol* 2014;19:214–220.
8. Xian YF, Mao QQ, Ip SP, et al. Comparison on the anti-inflammatory effect of cortex *Phellodendri chinensis* and cortex *Phellodendri amurenensis* in 12-*O*-tetradecanoyl-phorbol-13-acetate-induced ear edema in mice. *J Ethnopharmacol* 2011;137:1425–1430.
9. Bleidorn J, Gágyor I, Kochen MM, et al. Symptomatic treatment (ibuprofen) or antibiotics (ciprofloxacin) for uncomplicated urinary tract infection? Results of a randomized controlled pilot trial. *BMC Med* 2010;8:30.
10. Wagenlehner FM, Weidner W, Naber KG. An update on uncomplicated urinary tract infections in women. *Curr Opin Urol* 2009;19:368–374.
11. Taguchi I, Kiyohara H, Matsumoto T, Yamada H. Structure of oligosaccharide side chains of an intestinal immune system modulating arabinogalactan isolated from rhizomes of *Atractylodes lancea* DC. *Carbohydrate Res* 2004;339:763–770.
12. Yu KW, Kiyohara H, Matsumoto T, et al. Characterization of pectic polysaccharides having intestinal immune system modulating activity from rhizomes of *Atractylodes lancea* DC. *Carbohydrate Polymers* 2001;46:125–134.
13. Yan F, He HW, Yan R. Relative determination of the alkaloid metabolites of *Er Miao San* in rat urine by LC–MS/MS and its application to pharmacokinetics. *J Chromatography B* 2014;951–952:38–43.
14. Wang ZG, Xie PP. History and Development of Traditional Chinese Medicine. Amsterdam: IOS Press, 1999.
15. Jiao SD. Ten Lectures on the Use of Formulas: From the Personal Experience of Jiao Shu-de. Taos, NM: Paradigm Publications, 2005.
16. Park EK, Rhee HI, Jung HS, et al. Antiinflammatory effects of a combined herbal preparation (RAH13) of *Phellodendron amurense* and *Coptis chinensis* in animal models of inflammation. *Phytother Res* 2007;21:746–750.
17. Ding Y. Clinical study of *Ba Zheng San* for urinary tract infection [in Chinese]. *Neimenggu Zhong Yi Yao* 2012;5:15–16.
18. Jiang DL. 30 Cases of urinary tract infection treated with modified *Ba Zheng San* [in Chinese]. *Qinghai J Med* 1999;29:26.
19. Kamei T, Toriumi Y, Tomioka H. Effect of *Mao-bushi-saishin-to* on infection of ofloxacin resistant bacteria and of unknown origin. *Complement Ther Med* 2000;8:276–279.
20. Kuang ML. The effect of *Zi Shen* Pill on retention of urine and anuria [in Chinese]. *J Pract Tradit Chin Med* 1998;14:30.
21. Sun H, Li TJ, Sun LN, et al. Inhibitory effect of Traditional Chinese Medicine *Zi-Shen* Pill on benign prostatic hyperplasia in rats. *J Ethnopharmacol* 2008;115:203–208.
22. Matsuda H, Sato N, Yamazaki M, et al. Testosterone 5 $\alpha$ -reductase inhibitory active constituents from *Anemarrhenae* rhizoma. *Biol Pharm Bull* 2001;24:586–587.

23. Xu Y, Ventura S. Extracts of bark from the traditional Chinese herb *Phe-llo-dendron amurense* inhibit contractility of the isolated rat prostate gland. *J Ethnopharmacol* 2010;127:196–199.
24. Kang HP, Hou YJ, Lu K, Lu HS. Clinical observation on 68 cases of *Zi Shen Tong Guan* Pill in treating urinary tract infection on elderly women [in Chinese]. *Liaoning J Tradit Chin Med* 2009;51:1163–1164.
25. Li S, Lu AP, Wang YY. Symptomatic comparison in efficacy on patients with benign prostatic hyperplasia treated with two therapeutic approaches. *Complement Ther Med* 2010;18:21–27.
26. Gat Y, Gornish M. Erect posture of humans leads to male infertility, BPH and prostate cancer. *Andrologia* 2012;44:145–146.
27. Gat Y, Gornish M, Heiblum M, Joshua S. Reversal of benign prostate hyperplasia by selective occlusion of impaired venous drainage in the male reproductive system: Novel mechanism, new treatment. *Andrologia* 2008;40:273–281.
28. Chan WK, Lam DT, Law HK, et al. *Ganoderma lucidum* mycelium and spore extracts as natural adjuvants for immunotherapy. *J Altern Complement Med* 2005;11:1047–1057.
29. Noguchi M, Kakuma T, Tomiyasu K, et al. Effect of an extract of *Ganoderma lucidum* in men with lower urinary tract symptoms: A double-blind, placebo-controlled randomized and dose-ranging study. *Asian J Androl* 2008;10:651–658.
30. Noguchi M, Kakuma T, Tomiyasu K, et al. Randomized clinical trial of an ethanol extract of *Ganoderma lucidum* in men with lower urinary tract symptoms. *Asian J Androl* 2008;10:777–785.
31. Liu J, Shimizu K, Konishi F, et al. The anti-androgen effect of ganoderol B isolated from the fruiting body of *Ganoderma lucidum*. *Bioorg Med Chem* 2007;15:4966–4972.
32. Shoskes DA, Nickel JC, Rackley RR, Pontari MA. Clinical phenotyping in chronic prostatitis/chronic pelvic pain syndrome and interstitial cystitis: A management strategy for urologic chronic pelvic pain syndromes. *Prostate Cancer Prostatic Dis* 2009;12:177–183.
33. Chen JX, Hu LS. Traditional Chinese Medicine for the treatment of chronic prostatitis in China: A systematic review and meta-analysis. *J Altern Complement Med* 2006;12:763–769.
34. Qiu MX, Xiong GB, Zhou SY, et al. *Qingrelishi*-category Chinese medicine for chronic prostatitis: A systematic review [in Chinese]. *Zhonghua Nan Ke Xue* 2007;13:370–377.
35. Pang YR, Mo QP. Bazhengsan for 86 cases of Damp-Heat type chronic prostatitis. *J North China Coal Med College* 2009;11:353–354.
36. Chang DG, Wang TQ, Wei YJ, et al. Modified *Bazhengsan* for urination symptoms of chronic prostatitis with Damp-Heat accumulated in the Lower *Jiao* [in Chinese]. *Zhonghua Nan Ke Xue* 2010;16:664–668.
37. Shen J, Xie X. Effects of *Bazhengsan* on IL-1 and TNF- $\alpha$  in EPS of the patients with type II chronic prostatitis [in Chinese]. *J Guiyang College Tradit Chin Med* 2008;30:35–37.
38. Zhang MJ, Chu KD, Shi YL. Clinical study on treatment of chronic prostatitis/chronic pelvic pain syndrome by three different TCM principles [in Chinese]. *Zhongguo Zhong Xi Yi Jie He Za Zhi* 2007;27:989–992.
39. Zhang MJ, Weng JF, Shi YL, et al. Effect of Aike Mixture on the inflammatory infiltration in patients with chronic prostatitis type III A. *Chin J Integr Med* 2011;17:26–30.
40. Zhang MJ, Chu KD, Cheng XL, et al. Aike Mixture has good anti-inflammatory and analgesic effects on mice [in Chinese]. *Zhonghua Nan Ke Xue* 2007;13:471–473.
41. Zhang MJ, Shi YL, Cheng WJ, et al. Relaxant effects of Aike Mixture on isolated bladder and prostatic urethral smooth muscle of rabbits. *Chin J Integr Med* 2014;20:420–424.
42. Qin F, Liu JY, Yuan JH. *Chaihu-Shugan-San*, an Oriental herbal preparation, for the treatment of chronic gastritis: A meta-analysis of randomized controlled trials. *J Ethnopharmacol* 2013;146:433–439.
43. Liu HG, Ma WJ. Efficacy of *Chaihushugansan* in the treatment of chronic non-bacterial prostatitis [in Chinese]. *Guangxi J Tradit Chin Med* 2008;31:211–212.
44. Scheid V, Bensky D, Ellis A, Barolet R. *Chinese Herbal Medicine Formulas and Strategies*, 2nd ed. Seattle: Eastland Press, 2009.
45. Kou J, Ni Y, Li N, et al. Analgesic and anti-inflammatory activities of total extract and individual fractions of Chinese medicinal ants *Polyrhachis lamellidens*. *Biol Pharm Bull* 2005;28:176–180.
46. Zhu XW, Chen ZD, Yao XL, et al. Chinese patented medicinal Compound Xuanju for the treatment of chronic prostatitis III [in Chinese]. *Chin J Androl* 2010;24:56–57.
47. Peng GP, Qi DZ, Hu KQ, et al. Therapeutic efficacy of Compound Xuanju capsule on type III prostatitis [in Chinese]. *Zhonghua Nan Ke Xue* 2013;19:551–554.
48. Wang L, Liang P, Yang W, et al. Efficacy of Compound Xuanju capsule in the treatment of chronic prostatitis with erectile dysfunction [in Chinese]. *Zhonghua Nan Ke Xue* 2012;18:950–952.
49. Li XD, Shao HL, Song GJ, et al. Efficacy of Compound Xuanju capsule on type-III prostatitis-related sexual dysfunction [in Chinese]. *Zhonghua Nan Ke Xue* 2012;18:665–668.
50. Kaneko S, Akiyama T, Kurita T. Combined treatment of chronic prostatitis with sulfamethoxazole-trimethoprim and *hachimi-ji-oh-gan* [in Japanese]. *Hinyokika Kyo* 1988;34:1091–1095.

---

**Eric Yarnell, ND, RH (AHG)**, is chief medical officer of Northwest Naturopathic Urology, in Seattle, Washington, and is a faculty member at Bastyr University in Kenmore, Washington. **Kathy Abascal, BS, JD, RH (AHG)**, is an herbalist in Vashon, Washington.

---

To order reprints of this article, e-mail Karen Ballen at: [Kballen@liebertpub.com](mailto:Kballen@liebertpub.com) or call (914) 740-2100.