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**File: ■ Traditional Chinese Medicine
■ Chronic Fatigue Syndrome**

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RE: Traditional Chinese Medicine Used for Treating Chronic Fatigue Syndrome

Chen R, Moriya J, Yamakawa J, Takahashi T, Kanda T. Traditional Chinese medicine for chronic fatigue syndrome. *eCAM*. 2010;7(1):3-10. doi:10.1093/ecam/nen017.

Chronic fatigue syndrome (CFS), a multi-symptom condition with multiple contributing factors, has recently been recognized by conventional Western medicine. It is poorly understood and imperfectly treated. The authors investigated the potential value of remedies for fatigue syndrome (FS), a condition recognized by traditional Chinese medicine (TCM) since ancient times, in CFS.

CFS and FS have many similar general, nervous system, digestive, musculoskeletal/locomotion, respiratory, circulatory, and urinary tract symptoms. However, TCM links several genital symptoms and also bloody stool and urine to FS—symptoms that are uncommon in CFS, and suggest that different infections triggering bowel and bladder inflammation are more common in FS than CFS. The Center for Disease Control (CDC) definition of CFS includes six months of unexplained, excessive fatigue and four or more other symptoms.

Conventional medicine treats CFS with antidepressants, stimulants, sleep and pain medications. Western holistic practitioners treat with the SHINE Protocol (Sleep, Hormonal support, Infections, Nutritional support, and Exercise) which results in an average 90% improvement in published randomized and placebo controlled research.

The authors searched over 600 electronic TCM sources for "fatigue syndrome." *Pujifang*, a "monumental" prescription book from the Ming Dynasty (1368-1644 C.E.), has 975 entries for FS. Over 50 ancient sources named crude drugs used in FS. With these materia medica, the authors compare frequency of use of ingredients to invigorate *qi* and *yang*, nourish *yin* and blood, adjust abnormal sleep and emotion, and clear heat-producing pathogens. Meals used for FS patients were also analyzed for main ingredients: mutton, in 23 of 25 meals, twice as many as next-most-frequently-recommended fermented soybean (*Glycine max*) and chicken meat. However, unfermented soybean appears in other recipes, as do several types of poultry and meats; if viewed together, meat and soybeans are clear favorites.

Some ancient TCM prescriptions for FS are still used today. The authors report on studies of efficacy. At this point in the article, they begin to use "CFS," and it is unclear if modern practitioners use TCM definitions of FS or the CDC's definition of CFS. Some studies were

on populations not diagnosed with either CFS or FS, but with similar symptoms; in others, CFS patients were studied. No standard TCM remedy is named in connection with more than one study. It is encouraging to see several randomized, controlled trials (RCTs), but the authors note that anecdotal, non-randomized trials remain the norm in TCM publications on CFS. All studies cited found some treatment benefit, from improved cognitive ability or psychological symptoms to restored ability, in some, for patients to resume normal activities.

Of specific herbs – usually used in complex formulas – the most studied, Asian ginseng (*Panax ginseng*), had mixed results. Some studies found it effective in relieving fatigue, while others did not. Enhanced cognition was claimed in one RCT, but it was found no better than placebo for sleep disorders. Other Chinese herbs used in CFS are little studied. Poria (*Wolfiporia cocos*) may help relieve neurasthenia and improves sleep. Desert broomrape (*Cistanche deserticola*) and Chinese licorice (*Glycyrrhiza uralensis*) root also have beneficial effects on some symptoms.

In mice, dong quai (*Angelica sinensis*); aatalpol, from rehmannia (*Rehmannia glutinosa*) root; and peony (*Paeonia lactiflora*) root relieved symptoms like some of CFS. An ingredient in polygala (*Polygala tenuifolia*) improved cognition. Extract of fossilia mastodi ossis ("dragon bone"; the skeleton of an extinct mammal) elicited GABA receptor-mediated anxiolysis, potentiated pentobarbital, and reduced locomotor and anticonvulsive activity. Magnetite improves muscle fatigue and can lower pentobarbital's threshold and sleep incubation time. Not all recorded TCM drugs are useful; some may worsen CFS, such as the mineral fluorite. Also, alleviating symptoms of CFS is not the same as treating CFS.

TCM posits deficiencies in five organs (including *qi*, blood, *yin*, and *yang*), from pathogens, physical strain, mental stress, or improper diet, as underlying FS, and treats symptoms and causes. Five models are accepted. Depending on the *zheng* (pathogenesis) of the condition, treatment is designed. Diagnosis involves pulse and tongue observation and symptoms.

Today, in conventional medicine, the role of infections and immune system dysfunction are being explored as significant underlying causes of CFS. TCM drugs to invigorate *qi* and tone the spleen are often used for CFS, boosting immune status. In human and animal studies, TCM drugs decrease spleen weight; reduce interleukin (IL)-10 mRNA expression; inhibit tumor necrosis factor- α , IL-6, IL-10, and transforming growth factor- β 1; increase interferon- γ in peripheral blood mononuclear cells; and raise natural killer cell function and cellular immunity. Another research focus is on regulating abnormal hypothalamic-pituitary-adrenal (HPA) axis activity. Results are promising, particularly in underlying causes of CFS-related depression. Oxidative stress has also been proposed as a cause of CFS, and natural antioxidants, e.g., ashwagandha (*Withania somnifera*), quercetin, St. John's wort (*Hypericum perforatum*), ginkgo (*Ginkgo biloba*), and bilberry (*Vaccinium myrtillus*) are used to treat it.

Evidence-based trials and RCTs are needed. TCM formulas and drugs used to clear heat pathogens, used in viral and bacterial infections, may help in early stages of CFS, but no one has studied this issue. The authors call for quantification of clinical CFS data, in order to formulate definitive diagnostic and treatment guidelines.

—Mariann Garner-Wizard

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