



GENERAL ACUPUNCTURE

## Treating the Terrain of Chronic Sinus Infections

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Chronic sinus infections can be stubborn to treat, but the therapeutic path forward can be simplified when utilizing *three* distinct treatment principles which take into account the terrain of the body, and the way in which microbes grow.

Although sinus infections are more common in spring with the rise in airborne allergens, susceptible individuals can succumb at any time of the year. As a chronic condition, it is not uncommon for sinus infections to occur in repeated succession, despite multiple courses of antibiotic therapy. From this we can infer there is a disruption in the innate immunity of the individual, rendering the patient vulnerable to the infectious agent. In biomedicine, this notion harkens back to the debates between scientists Louis Pasteur and Claude Bernard.

### The Germ Theory

The scientific community of the late 19th century saw the rise of germ theory, in part with the help of Louis Pasteur, who pioneered pasteurization with the intent to make food safer. The dominant medical belief that was strengthened by Pasteur's findings purported that disease was caused by pathogens that, if eliminated, would cure the infection and its resultant symptoms.

The legacy that follows is personified by all things sterile and antibacterial, including the rise of antibiotic-resistant strains of certain microbes that have adapted to survive entire classes of drugs. Pasteur's critics argued that virulence of the microbe was not as important as resistance of the body, known at that time as the biological terrain or "milieu intérieur" (internal milieu), a concept developed by Bernard.



This comes as no surprise to practitioners of traditional Chinese medicine, who have long understood the concepts of "wei qi" and the transmission of pathogenic factors from the exterior of the body toward the interior.

### Drugs VS. Herbs

At the fringes of the rising pharmaceutical machine, holistic medicine practitioners stuck to their roots (both metaphorically and medicinally) by employing herbal therapies that lower populations of microbes while at the same time strengthening the body's immune system. The latter strategy is also used preventively with the idea that if the body is sufficiently bolstered, a healthy individual should withstand all but the most virulent infectious diseases.

This understanding matches the observations of generations of traditional Chinese medicine practitioners. Except for severe epidemic diseases, there is always a portion of the population exposed to a pathogenic factor that does not contract the expected illness. We see patients who catch every cold that comes along and others who seem miraculously immune.

Chronic sinus infections can be viewed through this lens. Repeated courses of antibiotic therapy miss the mark if the patient's biological terrain has not been addressed. To resolve a chronic infection, we must add two treatment strategies to an antimicrobial regimen. The *first* is strengthening the immune system, and the *second* is removing the conditions that favor the concealment of germs from immune cells through the formation of a biofilm.

### Boosting the Immune System

There are many factors that can hinder an individual's innate immunity, two common ones being consuming lots of sugar and periods of unremitting stress (how unfortunate that the two often go together). Lack of sleep, environmental toxins, negative emotions — all these things can result in a compromised immune system.

In an ideal world, our patients could eliminate these obstacles to proper immune function; however, for instances when certain stresses are unavoidable, we can provide acupuncture and herbal therapy. Yu Ping Feng San and high-potency *Echinacea angustifolia* root are an excellent combination for long-term immune support.

## Biofilms

A biofilm is a colony of microbes banded together and adhered to the lining of epithelial tissue, the formation of which may persist along the sinus passages in a patient suffering from chronic infections. The way in which they grow is analogous to a thin layer of algae slime you might see growing among rocks in a creek bed. The slime is undisturbed until you wade through the water, at which point the current becomes turbid with algae.

## The Factor of Predisposition

Physical barriers such as congenital sinus malformations can predispose an individual to an overgrowth of pathogenic microbes, but it is not precise to assert that these nooks and crannies are the cause of a biofilm. Although these pockets can house areas of pathogenic microbes, they are not necessarily the cause of a biofilm accumulation.

## Lifestyle Factors

Stubborn biofilms are often the result of lifestyle factors that predispose a person to their growth. One of the most common in the ear, nose, and throat area is the consumption of dairy, especially pasteurized dairy, in individuals who tend to accumulate phlegm from eating cheese or drinking milk.

Chronic inflammation due to airborne allergens or toxic inhalant chemicals can trigger mucus production that anchors microbes along sensitive tissue.

The specific dietary and/or environmental triggers vary from patient to patient, so proper evaluation and avoidance of mucus-producing foods must be done on a case-by-case basis. (Although avoiding sugar and dairy will often produce improvements in most patients.) A Neti Pot™ can be useful to help flush the sinuses, but herbal biofilm disruptors, such as huang qin and the berberine-rich herb barberry (*Berberis vulgaris*) are most beneficial.

## Herbal Therapy

The *second* part of treatment is targeted herbal therapy to lower populations of pathogenic microbes that are overwhelming the body. Antibiotic therapy will do this but at a cost. Antibiotics pose a risk to our gut microbiome, predisposing us to a buildup of pathogenic yeasts that are unaffected by antibiotics. This is extremely relevant as some cases of chronic sinus infections are not bacterial but fungal in origin.

If antibiotics are prescribed without confirming the nature of the infection by culturing a swab test, it is possible that a patient is receiving an ineffective therapy, delaying proper treatment of the infection

if a fungal overgrowth is the root pathology.

Clinical experience suggests that this is true of many recalcitrant sinus infections. Key anti-fungal herbs to consider are chun gen pi (noted herb in Yu Dai Wan) and *Andrographis paniculata*.

### Final Tips

We can never fully eliminate these bugs from our system, but we can keep them in check. This is the job of our immune system and the native flora of our sinuses.

By reinforcing the body's defenses, patients will be well-equipped to handle almost any assault, whether from germs, allergens, or toxins. This is the sentiment that has permeated holistic medicine since the time of Hippocrates and was echoed by Bernard in opposition to Pasteur's claims.

Looking back, we come to an interesting twist of fate at the end of their story as on Pasteur's deathbed he came to finally admit that Bernard was right by stating, "The microbe is nothing, the terrain is everything."

### Resources

1. Ponikau JU, Sherris DA, Kern EB. "The diagnosis and incidence of allergic fungal sinusitis." *Mayo Clinic Proc.*, 1999 Sep;74(9):877-84.

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