A retrospective case series analysis on a novel acupuncture and Traditional Chinese Medicine diagnostic and treatment approach, and its efficacy results in treating Allergic Rhinitis.

By

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A capstone project

Presented in partial fulfillment of the requirements for the Doctor of Acupuncture and Oriental Medicine Degree

Yo San University

Los Angeles, California

January 2016
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Abstract

This retrospective case series analysis investigated a novel acupuncture and Traditional Chinese Medicine diagnostic and treatment approach, and its efficacy results in treating Allergic Rhinitis. The primary question associated with this research capstone was: “Does the novel integrative Blood plus Balance Method approach of Tan’s Strong Blood Strong Immunity, provide better efficacy and long term outcomes?” The historical cases were reviewed in a quantitative manner using weeks to symptom abatement, and weeks to (any) new onset in comparison to current studies as outcome measures. After a thorough review and analysis of the studies, the hypothesis was confirmed—not only does the Tan Strong Blood Strong Immunity produce quicker efficacy, it also provides longevity with no recurrence at a faster rate than the current studies. The results were discussed with implications for practice and recommendations for future research.

Keywords: acupuncture, acupuncture therapy, allergic rhinitis, hayfever, traditional Chinese medicine, Chinese herbal medicine
Acknowledgements

The journey through the unchartered waters of this capstone research was both scary and exciting, and would not have been possible without the guidance and support of many special people. First, to my advisor, Dr. Eric Tamrazian, MD, I greatly appreciate your wisdom and help not just with my navigation plan, but also for keeping my boat moving and the wind in my sails with your encouragement and gentle nudges. Second, to Dr. Yvonne Farrell, DAOM, L.Ac., who helped bring articulation and foundation to my Traditional Chinese Medicine thoughts, and provided immense emotional support when the weather was rainy and cloudy. Third, to my fellow Balance Method friends and colleagues, John Maxwell, L.Ac., and John Mini, L.Ac. I greatly appreciate your support and help in shining light, providing clarity, and resources regarding the sources, framework, and articulation of the Balance Method. Next, to Jeffrey G. Redwood, whose meaningful partnership and friendship in my life’s journey holds a special place in my heart, and whose statistical and graphing skills brought my data to life. To Michael D.A. Labossiere, I love and appreciate you and your valuable, loving, and understanding support as I charted these arduous waters. To Yo San University, thank you for providing the vessel on this journey to further integrative medicine knowledge, and to help us express our innovative thoughts on our research and practice, with inspiring instructors and colleagues.

To my parents, Amir Sin-Ming Tan and Athena Ching-On Cheng, and my brother Henri K. Tan. Thank you for your unwavering and loyal support. You helped keep my boat afloat and always do. I love you very much. To my Shifu, the late Dr. Richard Tehfu Tan. I am forever grateful to have had the opportunity to experience in-depth, your charisma, wisdom and inspiring teachings.
Of great importance are all the teachers that came before me, imparting their knowledge and innovations to the world, including those whom I was not able to meet but whose teachings I greatly appreciate. Lastly, I am grateful for the amazing medical system of Traditional Chinese Medicine (TCM) and acupuncture. If it were not for you and your ability to cure me of my own allergies and asthma, I would not have travelled down this enriching path of helping heal others the way that TCM has healed me. Xie Xie 謝謝.

Dedication

This capstone is dedicated to three very special beings in my life. First, in loving memory of Woon-Yew Tan and Sui-Yen Cheng, who both inspired me with all things Chinese metaphysics, and whose love I feel in spirit every day. I miss you both dearly. Next, to Meridian Tan, my best feline friend of 17.5 years. I’ve had you since you were 8 weeks old and you have been the love of my life, intuitively attending to all my emotional needs, sharing my highs and lows, and being a source of great comfort and joy to the core of my soul. I love your grounded love. If it were not for TCM and acupuncture, I would not have been able to adopt you. May this capstone inspire others to seek complete and natural healing, and to experience the same love and joy I have had with you.

Sonia Fairyn Tan
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Chapter 1: Introduction

Perhaps one of the most overlooked allergic diseases is Allergic Rhinitis (AR), also commonly known as hay fever or pollinosis. AR does not enjoy the same attention in the public as cancer or cardiovascular disease, however, it is one of the most pervasive. In fact, allergic diseases are increasing worldwide with unprecedented complexity, sensitivity and severity (WAO, 2011). In 2011, the World Allergy Organization determined that 20-30% of the world’s population suffered some form of allergies (WAO, 2011). AR may not be deemed as serious or chronic enough to seek a treatment or cure, which means that patients may temporary measures. This underestimation of this disease’s severity means that people do not act appropriately and ignore it AR symptoms. However, AR can be enough of a nuisance to affect a patient’s daily quality-of-life. For some, the symptoms of AR are severe enough to affect attention and concentration, sleep quality, economic burden, interpersonal relationships and psychological well-being. The author personally experienced life changing results with the treatment of severe food allergies, AR, and asthma with acupuncture and Traditional Chinese Medicine (TCM). Thus, it is the authors’ life work to showcase the medical approaches of AR, and the importance and efficacy of acupuncture and TCM in treating AR.

One significant burden of AR is the fact that 20-30% of the global population are affected by AR, with studies indicating the disease is increasing worldwide (WAO, 2011). In the United States, AR is estimated to affect 60 million people, with a prevalence of 10-30% in adults and nearly 40% in children (Min, 2010). Another significant fact is that AR is a risk factor for asthma and growing studies on this relationship have been reported (Bousquet et al., 2012; Guerra, Sherrill, Martinez, & Barbee, 2002; Linneberg et al., 2002; Min, 2010). Other co-morbidities include sinusitis, nasal polyposis, otitis media with effusion, conjunctivitis, upper
respiratory infections, and sleep disorders (WAO, 2011). Beyond physical symptoms, AR has other significant impacts on the patient, including psychological effects, interference with social interactions, and economic burden for the patient, family, and society. There is also possible potential for showing a link of genetics in allergic disease and its onset, phenotypes, severity and response to treatment (WAO, 2011). Lastly, epigenetic factors may explain a portion of the gene-environmental link (WAO, 2011).

Another significance of AR’s impact on health is that the management of AR in Western medicine is limited to desensitization, or the management of AR with over-the-counter (OTC) pharmaceuticals without largely providing any long-term reduction or abatement of symptoms. Western medicine evidence thus far has been able to demonstrate good control of symptoms over time, however, it has yet to provide complete long-term abatement of recurrence.

The Relationship Between Inflammation and Aging

While not within the scope of this Capstone, it is the author’s thought that there may be long-term implications and significance of an above normal or chronic inflammatory process in the body, where it has a detrimental impact on aging and longevity. This is supported by recent Gerontology & Geriatric research written about in the June 2014 Journal of Gerontology & Geriatric Research’s editorial, “Inflammation in Aging and Age-related Diseases” (Reale, 2014). In this article, the editor states “The evidence accumulated over the years indicate that the pro-inflammatory molecules and molecular mechanisms of inflammation are the basis of aging and many age-related diseases.” (Reale, 2014). Most recently, Arai et al. (2015) studied multiple biomarkers such as haematopoiesis, inflammation, lipid and glucose metabolism, liver function, renal function, cellular senescence domains and telomere lengths of Centenarians (those that are 100 years of age or older). They aimed to identify biological domains that predict successful
aging at extreme old age, to see whether improved performance in these domains would be recognizable in centenarian offspring. Arai et al. results suggest suppression of inflammation is the most important driver of successful longevity, and that this increases in importance with advancing age (Arai et al., 2015).

Allergic Rhinitis (AR) is a hyper-reactive inflammatory process in the body. Thus the long-term impact of AR and effective treatment for it, may lead to improving aging and quality-of-life by alleviating and abating this inflammatory process. We thus can restore a healthy aging state and have improved longevity.

In Chinese Medicine, the treatment of AR has been inferred as treatable with no indication of recurrence and a good prognosis (Maclean, 1998). In reality, acupuncture and TCM has been able to relieve symptoms completely for some, and other times, been able to relieve symptoms only temporarily as shown by current studies (KizhakkeVeettil & Fu, 2008; Lee, Pittler, Shin, Kim, & Ernst, 2009).

**Allergic Rhinitis: Definitions, Diagnosis and Treatments in Western Medicine**

**Definitions and classification of AR.** An allergy or hypersensitivity reaction occurs when the body's immune system overreacts to a substance that is normally harmless (an allergen). The Austrian pediatrician Pirquet, introduced the term “allergy” in 1906. The word “allergy” derives from the ancient Greek words, **allos** (altered) and **ergo** (reaction). The white blood cells of an allergic individual produce an antibody called Immunoglobulin-E (IgE), which attaches to the allergen. This triggers the release of histamine and other inflammatory chemicals that cause allergic symptoms, such as rhinorrhea, watery eyes and hives. If the allergen is airborne, the allergic reaction will primarily affect the eyes, nose and lungs. These are typical AR symptoms. If the allergen is ingested, the allergic reaction will primarily affect the
gastrointestinal tract. If a hypersensitivity threshold is reached, inflammatory chemicals are released, and a reaction such as hives or rash could occur throughout the body. The most severe allergic reaction, known as anaphylaxis, can lead to low blood pressure, breathing difficulties, shock, and loss of consciousness, all of which can be fatal.

Allergic Rhinitis (AR) is defined as an allergic inflammation of the nasal mucosa. It is the presence of nasal congestion, anterior and posterior rhinorrhea, sneezing and nasal itching, secondary to the IgE mediated inflammation response of the nasal mucosa (WAO, 2011). While it is most characterized by one or more symptoms of sneezing, nasal itching, nasal congestion, rhinorrhea (runny nose), it can also be characterized with Allergic Conjunctivitis symptoms of tearing eyes, burning or itching eyes, red or swollen eyes. In addition, it may include itchy throat, mouth or skin. There are many causative agents linked to AR onset such as pollens, molds, dust mites, and animal dander.

AR is historically divided into two classifications. The first is seasonal allergic rhinitis (SAR) (pollinosis/hay fever). This is fairly easy to identify because of the rapid and reproducible onset and offset of symptoms in association with pollen exposure, which can result in hyper-responsiveness to allergens such as cigarette smoke, once pollen season is over. There may be a history of a reaction from the grass pollen or hay, hence hay fever. The second classification is perennial AR. This is more difficult to detect than SAR because of the overlap with sinusitis, respiratory infections, and vasomotor rhinitis. Perennial AR is defined as occurring during approximately 9 months of the year.

New classification guidelines were introduced in 2001 and revised in 2008 among the AR profession by Allergic Rhinitis and Its Impact on Asthma (ARIA) (Bousquet et al., 2012). These
were outcomes from an expert workshop at the World Health Organization (WHO) in December 1999 and were published in 2001, revised in 2008 and published in 2010. AR is subdivided by symptom duration, and the severity of AR: “intermittent” or “persistent”. As mentioned above, AR was historically subdivided by the type of allergens into seasonal or perennial AR. However, doctors were having difficulty classifying AR. Seasonal AR was considered to be caused by outdoor allergens and pollens. Perennial AR was considered to be caused by indoor allergens such as dust mites and animal dander. In addition, what was found was that perennial AR symptoms did not persist all year, and seasonal patients had rhinitis symptoms in all seasons. Furthermore, perennial AR patients were experiencing seasonal exacerbations when exposed to pollens. Moreover, the use of “‘intermittent’ and ‘persistent’” addresses the need to harmonize AR with asthma, representing manifestations of the same condition in two parts of the airways (Bousquet et al., 2012). For these reasons and more, in 2001, ARIA recommended using “intermittent” and “persistent” instead of “seasonal” and “perennial” (Bousquet et al., 2012). Even further, AR severity was classified as “mild” and “moderate-severe” considering its influence on work/school performance, daily activities and sleep (Min, 2010). Thus one can have intermittent symptoms at a Mild or Moderate-Severe level (see Table 1).

Large observational cross-sectional studies have found that severity (mild-moderate to severe) and persistence (intermittent/persistent) are 2 separate and possibly independent components of rhinitis (Bousquet et al., 2012). Further studies are recommended. The ARIA guidelines should be considered as a general guide, and physicians need to tailor these recommendations to individual patients, particularly given that patients live in different environments and each one has a different genetic makeup, and respond differently to allergens and medications (Bousquet et al., 2012).
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ARIA recommended classifications of Allergic Rhinitis

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<th>INTermittent</th>
<th>Persistent</th>
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<td>Less than 4 days per week, or</td>
<td>Greater than 4 day per week, and</td>
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<td></td>
<td>Less than 4 consecutive weeks.</td>
<td>Greater than 4 consecutive weeks</td>
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<td>MILD: All of</td>
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<td>the following</td>
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<tr>
<td>symptoms</td>
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<td></td>
<td>Normal sleep</td>
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<td></td>
<td>No impairment of daily activities,</td>
<td>Impairment of daily activities, sport,</td>
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<td>sport, leisure</td>
<td>leisure</td>
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<td></td>
<td>No impairment of work or school</td>
<td>Impairment of school or work</td>
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<td></td>
<td>Symptoms present but not troublesome</td>
<td>Troublesome symptoms</td>
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<td>MODerate-SEvere:</td>
<td>One or more of the following symptoms</td>
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TABLE 1

Pathophysiology of Allergic Rhinitis. Allergic Rhinitis (AR) is a hypersensitivity reaction in the nasal mucosa that occurs after exposure to allergens, through an Immunoglobulin-E (IgE) responsible hyper-reaction. The four cardinal symptoms are: watery rhinorrhea, nasal congestion, nasal itching and sneezing ((Min, 2010). As mentioned, symptoms also considered are those related to Allergic Conjunctivitis.

**Stage 1: Sensitization of allergens.** Antigen presenting cells (APCs), such as dendritic cells in the mucosal surface, process allergens and present some of the allergens’ peptides onto the major histocompatibility complex (MHC), specifically the class II molecule (Min, 2010). This MHC class II molecule and antigen complex play a role as the ligand of T-cell receptors on Naïve CD4+ T cells (Min, 2010). This results in differentiation of Naïve CD4+ T cells to become an allergen-specific Th2 cell (Min, 2010). These activated Th2 cells secrete several cytokines, which induce switching of B cells to produce specific IgE and proliferation of eosinophils, mast cells, and neutrophils (see Figure 1) (Min, 2010). The produced antigen-specific IgE binds to high-affinity IgE receptors on mast cells or basophils, ready to respond at the next allergen occurrence (Min, 2010).
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**Stage 1: Sensitization of allergens**

![Stage 1 Sensitization of allergens](image)

Source: www.studyblue.com [FIGURE 1]

**Stage 2: Early reactions.** Upon first exposure to the allergen, within 30 minutes, sneezing and rhinorrhea develops and then disappears. The main isotype involved in this reaction is the mast cell. These stimulated mast cells induce nasal symptoms by secreting their chemical mediators such as histamine, prostaglandins and leukotrienes. The mast cell is induced to de-granulate and release these chemical mediators when triggered by IgE, which reacts to the allergen present. This is the body’s mast cells response to the offending allergen, and is called Type I hypersensitivity (see Figure 2) (Min, 2010).

**Stage 3: Late reactions.** Nasal obstruction occurs approximately six hours after exposure to allergens then subsides slowly (Min, 2010). After the chemical mediators of eosinophils, mast cells, neutrophils, and T-cells have been produced, these inflammatory cells migrate to the nasal mucosa to break up and remodel normal tissue (Min, 2010). It is in this eosinophil chemotaxis process that nasal obstruction results, which is the main symptom of AR.
Stage 2: Type I hypersensitivity

Neurogenic inflammation. When respiratory epithelium is destroyed and nerve endings are exposed by cytotoxic proteins from eosinophils, sensory nerve fibers are excited by nonspecific stimuli (Min, 2010). They subsequently stimulate both sensory afferent and surrounding efferent fibers, the so-called retrograde axonal reflex (Min, 2010). This makes the sensory nerve fibers secrete neuropeptides such as substance P and neurokinin A, which induce contraction of smooth muscles, mucous secretion of goblet cells and plasma exudation from capillaries (Min, 2010). This process is called neurogenic inflammation (Min, 2010).
Non-specific hyper-responsiveness. One of the clinical characteristics of allergic inflammation is non-specific hyper-responsiveness. Due to eosinophilic infiltration and destruction of nasal mucosa, the mucosa becomes hyperactive to normal stimuli and causes nasal symptoms such as sneezing, rhinorrhea, nasal itching and obstruction (Min, 2010). This is a non-immune reaction that is not related to IgE (Min, 2010). Hypersensitivity to non-specific stimuli such as tobacco or cold and dry air, as well as specific allergens, increases in AR patients. Thus, those that already have AR, have a susceptibility to have hypersensitivity and hyper-responsiveness to other non-specific stimuli, unrelated to an IgE immune response.

The relationship between AR and Asthma. The links between rhinitis and asthma were identified 200 years ago, however, before the ARIA workshop, the asthma and rhinitis comorbidity was disregarded. The ARIA update literature review clearly supported the links between the upper and the lower airways (Bousquet et al., 2012). Epidemiologic studies have reported that almost all of the asthma patients have AR symptoms (Bousquet et al., 2012; Linneberg et al., 2002; Min, 2010). The severity of AR has a positive link with asthma and the risk of asthma incidence is five times higher in AR patients with elevated serum (Guerra et al., 2002). In a study by Silvestri et al. (2005), the relationship between bronchial hyper-responsiveness and inflammation was unclear, however with those patients already allergic, the bronchial responsiveness was significantly correlated with serum IgE levels and blood eosinophil levels (Silvestri et al., 2005). Silvestri et al. (2005), also suggested that the local inflammation of AR can predict bronchial hyper-responsiveness. In support of this, a domestic study of 83 pediatric AR patients and 32 normal children reported that prevalence of bronchial hyper-responsiveness was higher in AR patients than in control subjects (32.5% vs. 9.4%) and that
persistent AR and parental asthma are closely related to bronchial hyper-responsiveness (Choi et al., 2007). In addition, bronchial hyper-responsiveness in AR patients is a predictor of asthma (Ferdousi, Zetterstrom, & Dreborg, 2005). It has been generally recognized that the development and severity of asthma increases when a patient is sensitized to indoor allergens such as dust mites and cat dander (Gaga et al., 2000; Min, 2010). This characteristic finding of asthma is not found in patients with other pulmonary diseases and is evidence that asthma is a systemic disease. The prevalence of asthma in AR patients is significant. Most patients with asthma (both allergic and non-allergic) also have rhinitis, whereas 10% to 40% of patients with AR have asthma comorbidity (Bousquet et al., 2012).

**Diagnosis.** The diagnosis of AR is based on a patient’s history of symptoms (to define the classification) and diagnostic tests. When two or more symptoms of watery rhinorrhea, sneezing, nasal obstruction, or nasal pruritus persist for ≥1 hour on most days, AR is strongly suspected (Min, 2010). Subsequently, diagnosis of disease severity is based on the ARIA recommendations new classification (Bousquet et al., 2012). Diagnosis should further be confirmed by the skin prick test or the serum-specific IgE level. Unilateral nasal stuffiness, mucopurulent rhinorrhea, mucoid postnasal drip, pain, recurrent epistaxis or anosmia are usually not associated with AR (Min, 2010).

**Skin testing.** Skin testing is the most widely used and important test for identifying offending allergens. There are various methods of skin testing, including the scratch, prick/puncture, intradermal, and patch tests. Of these, the skin prick test is usually recommended in clinical practice. However, false-positive or false-negative reactions are frequently evoked in skin tests, which means that positive reactions to specific allergens in skin tests do not always
have a direct correlation with actual allergic reactions in the nasal cavity (Min, 2010). There is controversy regarding the interpretation of the test results due to different criteria for positive results among allergy clinics (Min, 2010). A further problem is that skin tests can be influenced by some drugs, particularly antihistamines, as well as a patients’ age, and the test sites. In addition, if a patient has dermatologic disease, skin tests are difficult to perform. Despite these weak points, skin testing is regarded as the most important diagnostic method for identifying offending allergens (Min, 2010).

**Serum specific IgE.** The radioallergosorbent test (RAST) was the first method to detect serum-specific IgE. However, this test has not been widely used because it requires a radioactive isotope and expensive equipment and also because this test cannot detect multiple antibodies simultaneously (Min, 2010). The next method is the multiple allergen simultaneous test (MAST). The MAST uses a photo reagent instead of a radioactive isotope, does not require expensive equipment and can detect multiple allergens simultaneously. This test is not affected by drugs such as antihistamines, is less invasive and can be adopted in patients with dermatographism (Min, 2010). Since the MAST has some advantages over the RAST, it has been widely used. One problem with the MAST is a low sensitivity in comparison with the skin prick test. However, Finnerty et al. (1989) reported that the MAST shows 66.5% and 78.5% concordance rates when the criteria for positivity are ≥3 mm and ≥5 mm, respectively, and recommended the MAST rather than skin tests (Finnerty, Summerell, & Holgate, 1989).

The capsulated hydrophilic carrier polymer (CAP) system is a more accurate *in vitro* test. Its procedure is similar to that of the MAST, but it uses a solid phase that has a high affinity to antigens. The CAP system can detect allergens more quantitatively than the MAST, by using
antigens bound to a fine thread because antigens bind to the inner surface of sponge-like cellulose polymer bubbles (Min, 2010).

**Treatments.**

**Avoidance.** Avoidance of indoor allergens is not the main method of AR treatment, however sometimes it becomes necessary such as in the case of occupational AR. Avoidance is sometimes difficult, therefore few studies on avoidance of allergens have been conducted. For this reason, the 2001 ARIA guidelines classified the avoidance as evidence, more specifically, lack of evidence that avoidance is an effective AR treatment (Bousquet et al., 2012). Bousquet et al. (2012) determined there is lack of evidence for the effectiveness of avoidance of house dust mites or pet animal dander in reducing AR symptoms (Bousquet et al., 2012). However, a previous study has shown that cleaning with 60°C hot water removes house dust mites and other allergens more effectively than 30°C water (26.8% vs. 0.6%) (Bousquet et al., 2012). With respect to occupational AR, the European Academy of Allergy and Clinical Immunology (EAACI) stated that the safest and most effective treatment is the strict avoidance of offending allergens (Bousquet et al., 2012; Moscato et al., 2009).

**Pharmacology—the main method.** The treatment of AR with pharmacology is according to severity and duration, and is a step-by-step approach.

The 2008 ARIA guidelines are different from the 2001 ARIA guidelines as follows: (1) leukotriene receptor antagonists can be used in all AR, (2) second-generation antihistamines are preferred to first-generation antihistamines and (3) topical steroids are regarded as the most effective drug for adult and pediatric AR patients (Min, 2010).

**Oral antihistamines.** Oral antihistamines are used and are effective in the treatment of rhinorrhea, sneezing, nasal itching, and eye symptoms, but less effective in nasal obstruction.
(Min, 2010). First-generation antihistamines, which have been used since the early 1940s, have some side effects such as sedation, memory impairment, and psychomotor dysfunction. On the other hand, second-generation antihistamines penetrate the blood-brain barrier much less than first-generation antihistamines, and thus they have few side effects on the central nervous system (Bousquet & Van Cauwenberge, 2003; Min, 2010). Therefore, the 2008 ARIA guidelines recommended second-generation antihistamines rather than first-generation antihistamines.

**Intranasal antihistamines.** Topical antihistamines have been reported to reduce itching, sneezing and rhinorrhea (Min, 2010). However, they are less effective than intranasal corticosteroids and ineffective in eye symptoms (Min, 2010; Yanez & Rodrigo, 2002). Intranasal antihistamines can reduce the symptoms of seasonal AR patients who do not respond to oral antihistamines. They have some side effects such as mild sedation and metallic taste (Min, 2010).

**Intranasal corticosteroids.** Steroid particles penetrate the cellular membrane and bind to cytoplasmic steroid receptors. The steroid-receptor complex is transferred to the nucleus and binds to the specific DNA site. The anti-inflammatory effect is induced by an alteration in protein synthesis after the binding of the steroid-receptor complex to DNA or by affecting other transcription factors. Intranasal corticosteroids inhibit both early and late reactions and reduce IgE production and eosinophilia by inhibiting the secretion of cytokines IL-4, IL-5, IL-13 (Min, 2010). Since intranasal corticosteroids are not absorbed systemically, they are thought to induce few systemic side effects. While there appear to be few systemic side effects with intranasal corticosteroids, there are known local and systemic adverse effects with topical glucocorticosteroids and its use in dermatology (Hengge, Ruzicka, Schwartz, & Cork, 2006). Hengge et al. (2006) recommend when the inflammatory disease remains uncooperative or
affects particularly sensitive areas, the repeated use of such steroids is not desirable for extended periods due to possible the adverse local and systemic reactions (Hengge et al., 2006).

*Leukotriene receptor antagonists (LTRAs).* The role of leukotrienes in allergic reactions is well known. The efficacy of LTRA has been demonstrated in asthma. Recently, some studies on the efficacy of LTRAs in AR patients have been reported. Interest in LTRAs has been increasing with the concept of “one airway, one disease”, and therefore many studies on LTRAs are being conducted. The additive effect of LTRAs and antihistamines requires more investigation. Until now, the pharmacological effects of LTRAs have been estimated to be similar to those of antihistamines but not as strong as those of intranasal corticosteroids in patients with seasonal AR (Bousquet et al., 2012).

*Anti-IgE antibody.* While anti-IgE antibody therapy appears to be helpful in severe asthma, it is controversial whether anti-IgE therapy is suitable as a treatment option for AR due to anaphylactic risk and high costs (Min, 2010).

*Immunotherapy.* Immunotherapy is the only therapeutic option that modifies the basic allergic mechanism by inducing desensitization and producing an energy state for offending allergens. Immunotherapy was initially introduced for seasonal AR due to pollens. Currently, its indications have been extended to other allergic diseases due to hymenoptera, house dust mites, animal dander, or fungi (Min, 2010). Extracts of offending allergens are injected subcutaneously with increasing doses until a maintenance dose is reached. The maintenance dose is administered for ≥3 years. Although subcutaneous immunotherapy is a well-established treatment option, the risk of anaphylaxis has led to the development of other administration routes such as the oral, sublingual or nasal route. Sublingual immunotherapy (SLIT) has been used for 20 years in
European countries because of its non-invasiveness, low incidence of adverse effects, and the convenience of self-administration. Recently, it has replaced subcutaneous immunotherapy.

Overall, immunotherapy is effective in treating house dust mite and pollen AR of adult and children, prevents asthma in AR patients and reduces new atopic sensitization. Its long-term effects after discontinuation of immunotherapy has been demonstrated. SLIT’s safety and efficacy have also been proven (Min, 2010).

*Sublingual Immunotherapy (SLIT)*

**Mechanism of SLIT**

Many recent studies on immunologic changes after SLIT have been conducted. Regulation of antigen-specific responses (an increase in the IgG4/IgE ratio), inhibition of recruitment/activation of inflammatory cells, shift of Th2 to Th1 responses, and activation of regulatory T-cells are the main mechanisms of SLIT (Min, 2010; Potter, 2006). Regulatory T-cells are known to play a crucial role in immune tolerance, and they are related to the mechanism of SLIT. High-dose allergen extracts for SLIT induce the formation of regulatory T-cells, which inhibit allergic inflammatory reactions by suppressing Th2 cells and producing IL-10 and TGF-b (Min, 2010).

**Clinical Efficacy of SLIT**

Research into SLIT has mainly been conducted in European countries during the last 20 years. Although most studies have included a small sample size, meta-analyses of these studies have recently been published. One meta-analysis of 22 trials and 979 subjects showed that SLIT reduced the symptom score and medication frequency (Min, 2010; Wilson, Lima, & Durham, 2005). In this meta-analysis, the symptom score and medication frequency were not improved in children. However, this study has some limitations due to the small sample size (Min, 2010).
Another meta-analysis of pediatric patients aged 4-18 years has suggested that SLIT reduces allergic symptoms and medication score (Min, 2010). A previous study conducted in Korea reported that subjective symptoms assessed with a questionnaire were improved six months after SLIT, and 45% of patients were satisfied with SLIT (Chang et al., 2009; Min, 2010). Like subcutaneous immunotherapy, SLIT also reduces the incidence of asthma (Novembre et al., 2004).

SLIT has been shown to reduce sensitization to new allergens. In a study with 216 patients, it was found that 5.9% of patients in the SLIT group showed positive skin test results to new allergens, in comparison to 38% of patients in the control group, suggesting that SLIT could prevent sensitization to new allergens (Min, 2010).

**Safety of SLIT**

SLIT is considered safer than subcutaneous immunotherapy. Common adverse events include local reactions (oral pruritus or swelling) and gastrointestinal problems (nausea, vomiting, diarrhea or abdominal pain), which subside spontaneously or with conservative management. Fatal adverse events causing death or severe sequelae have not yet been reported. Three cases of anaphylaxis after SLIT have been reported: 2 of them were due to a mixture of multiple allergens and the remaining occurred during the treatment with latex allergen (Min, 2010).

**Other Comorbid Diseases and Complications.**

**Allergic Conjunctivitis.** As previously mentioned, Allergic Conjunctivitis is one of the most common diseases accompanying AR and occurs when the conjunctiva becomes swollen and inflamed. This can be attributable to allergens such as pollens, dander, or mold. Symptoms may be seasonal and can include intense itching or burning eyes, puffy eyelids, red eyes, and
tearing or watery eyes. About 75% of AR patients complain of the symptoms of allergic conjunctivitis (Min, 2010).

Rhinosinusitis. The influence of AR on the paranasal sinuses is not well understood. Many studies have suggested that allergic inflammation could affect acute or chronic rhinosinusitis (Min, 2010).

Nasal polyposis. The relationship between nasal polyposis and allergy is not clear. Mechanisms involving edema and protrusion of nasal mucosa in nasal polyposis are similar to the pathophysiology of AR (Min, 2010). Samter’s Triad may present if the patient has a concurrent triad of nasal polyps, aspirin sensitivity and asthma. Chronic hyperplastic sinusitis is now considered a fourth marker of the disease, with the preferred name now being aspirin exacerbated respiratory disease (AERD) (Spies et al., 2015).

Adenoid hypertrophy. Sensitization to inhalant allergens can alter immunological parameters of the adenoid. Although there have been few reports on the efficacy of antihistamines in AR patients with adenoid hypertrophy, intranasal corticosteroids are known to improve the symptoms of adenoid hypertrophy regardless of the presence of atopy (Min, 2010).

Eustachian tube dysfunction and otitis media with effusion. Since the nasal mucosa is lined with the respiratory epithelium, allergic reactions due to inhalant allergens can occur in the eustachian tube. Therefore, the eustachian tube function of AR patients can become impaired and otitis media with effusion occurs frequently, especially in children. It is controversial whether allergic inflammation in the eustachian tube is a reaction to local irritation or part of systemic reaction (Min, 2010).

Changes in cognitive abilities. Although cognitive abilities in AR patients have not yet been studied, there is growing interest in this issue. Learning or cognitive problems should be
considered psychological complications of AR. AR patients often do not concentrate on their school or work due to sneezing, rhinorrhea or nasal itching. A study reported that during ragweed season, allergic reactions to ragweed pollens cause a decrease in the speed of cognitive processing and difficulties in working memory in patients with ragweed AR (Min, 2010). Symptomatic AR is related to poor school performance (Min, 2010; Walker et al., 2007).

Primary prevention is difficult as biomedicine has not been able to determine the reason for the rise in allergen sensitization.

**Risk factors.**

- Family history of atopic diseases.
- Increased total serum IgE before the age of 6.
- Higher Socio-Economic status.
- Positive immediate hypersensitivity tests.
- Antibiotics in the first week of life (Alm et al., 2014).
- Lack of breast feeding history (Friedman & Zeiger, 2005).

**Allergic Rhinitis: Definitions, Diagnosis and Treatments in Traditional Chinese Medicine and Acupuncture**

In Traditional Chinese Medicine (TCM), rhinitis is defined as *Bi Jiu* 鼻鼽 (nose congestion) (G. Maciocia, 2004). Rhinitis in TCM is related to the concept of Wei-Defensive Qi (see “Wei-Defensive Qi” below). Before further discussing the TCM view of the immune system and the TCM classification of AR, it is prudent to review the relevant definitions of TCM medical terms, and the TCM view of the immune system.
Definitions and classifications of relevant TCM immunity terms.

**Qi.** Likely the most difficult word to translate in Chinese, Qi is a concept that has been variously translated as “energy”, “vital force”, “life force”, “vital energy”, and more. Qi has a fluid and transforming nature, where it becomes different manifestations and different things in different situations, hence the difficulty in translating the term “Qi”. This capstone will simply define “Qi” as an energy that manifests spiritually and physically, is in a constant state of flux, and is a refined essence of various forms that provides the function of nourishment to the body and mind (Giovanni Maciocia, 1989).

**Blood – Xue.** Xue-Blood in TCM has a different meaning than in Western Medicine. For simplicity, with respect to this TCM concept only, the author will simply using the term Blood instead of Xue-Blood for the remainder of the capstone. In TCM, Blood is a very dense and material form of Qi (Giovanni Maciocia, 1989). Blood is also inseparable from Qi itself. Blood is mostly derived from Gu-Food Qi which is produced by the Spleen. The Spleen then sends this Gu-Food Qi to the Lungs which in turn is sent to the Heart. In TCM, there are two important features in the manufacturing of Blood (Giovanni Maciocia, 1989). One, is that Gu-Food Qi is transformed into Blood with the assistance of Yuan-Original Qi. Two, is that the Kidneys which store “Essence”, produces “Marrow” which in turn, contributes to making Blood (Giovanni Maciocia, 1989).

**Jing – Essence.** Jing, or Essence, is the TCM idea of something refined and distilled and a high source of nourishment. Jing-Essence is divided into three contexts: Pre-Heaven Essence, Post-Heaven Essence, and Kidney Essence. Pre-Heaven Essence refers to a person’s inherited constitutional make-up of strength and vitality. Post-Heaven Essence is refined and extracted from food and fluids by the Spleen and Stomach after birth (Giovanni Maciocia, 1989). Kidney
Essence is derived from both Pre and Post-Heaven Essence, and determines growth, reproduction, development, sexual maturation, conception and pregnancy (Giovanni Maciocia, 1989).

**Yuan Qi – Original Qi.** Yuan Qi is Essence in the form of Qi, and it facilitates the movement, transformation of Qi and Blood in the organs and meridians (Giovanni Maciocia, 1989). It originates in the lower “jiao-burner” (LJ) and the Kidney organ system. The “jiao” or “burner” as commonly translated in TCM is a sectional way to define transportational and location concepts in the body in TCM.

**Wei Qi – Defensive Qi.** This Qi is the body’s first line of defense to fight off pathogens trying to invade the body, and is an extension of the Lung system. The Lung system distributes Wei-Defensive Qi to all surfaces of the body, including the mucous membranes of the nose and throat. “Wei” means “defend or protect” in Chinese. In English, Wei Qi is referred to as “Defensive Qi”. Wei-Defensive Qi functions through the supply of (Kidney and Spleen) Yang Qi. If the functioning of Wei-Defensive Qi at these surfaces is inadequate, then it will not respond to inhaled pathogens appropriately, and the area will become irritated and inflamed, provoking mucous production and sneezing (Maclean, 1998). The Lungs regulate the circulation of Wei-Defensive Qi, so a weakness of Lung Qi may lead to a weakness of Wei-Defensive Qi (Giovanni Maciocia, 1989). The Lungs and Wei-Defensive Qi reside and operate in the upper jiao-burner (UJ). Wei-Defensive Qi also is nourished by the Food Qi of the Spleen and Stomach, which is in turn nourished by Jing-Essence and Yuan-Original Qi of the Kidneys (Giovanni Maciocia, 1989).

**Ying / Ying Qi – Nutritive Qi.** “Ying” can be translated as “Nutritive or Nourishing” in Chinese. Ying-Nutritive Qi therefore nourishes the internal organs and the body. Ying-Nutritive
Qi is the Qi aspect of Blood and is therefore closely related to Blood. Ying-Nutritive Qi flows with Blood in the blood vessels as well as the channels (Giovanni Maciocia, 1989). Ying-Nutritive Qi is the Qi of the middle “jiao-burner” (MJ).

**Zheng Qi – Upright Qi.** Translated as “Upright” Qi, Zheng Qi is a general term to encompass the various Qi that have a function of protecting the body from invasions of pathogenic factors. Zheng-Upright Qi strength indicates the body’s resistance to exterior, and interior disease. Wei-Defensive Qi is one aspect of Zheng-Upright Qi, which include all of the body’s protective Qi (Giovanni Maciocia, 1989). Zheng-Upright Qi is the concept and description of the TCM immune system as a whole.

**Gu Qi – Food Qi.** Gu Qi is translated as “Food” Qi in Chinese. Gu-Food Qi is the first stage in transforming food into Qi. When food enters the Stomach, it is first “rotted and ripened” and then transformed into Gu-Food Qi by the Spleen. Gu-Food Qi then rises to the chest and goes first to the Lungs, where it combines with air and forms Zong-Gathering Qi. Gu-Food Qi also goes to the Heart where it is transformed into Blood by the help of Kidney Qi and Yuan-Original Qi. Gu-Food Qi is thus a starting point for the production of all Qi and Blood. This relationship between the Spleen transforming Gu-Food Qi, then lifting Gu-Food Qi to the Lungs to function, then further lifting Gu-Food Qi to the Heart to produce Blood, illustrates the importance of Food and Blood to not just the Wei-Defensive system, but our overall levels of Qi and Blood in our body, and therefore our overall Zheng-Upright Qi (Giovanni Maciocia, 1989).

**Zong Qi – Gathering Qi.** Some translations refer to this as “Ancestral Qi”, or alternatively, “Chest Qi”, because of the context that this Qi collects or gathers in the Chest. Zong-Gathering Qi is created from Gu-Food Qi (see “Gu-Food Qi” below) from the Spleen and Stomach combined with air gathered from the Lungs. Its main functions are to nourish the Heart
and Lungs, and enhance the Lung and Heart function (Giovanni Maciocia, 1989). Zong-Gathering Qi is the energy of the chest and assists with the Yuan-Original Qi function as it flows downward to aid the Kidneys and Yuan-Original Qi (Giovanni Maciocia, 1989).

**Lung Qi.** Lung Qi when healthy, controls respiration properly. The Lungs also send Qi downward to the Kidneys, and play a role in assisting the Kidneys and Bladder with urination in TCM. Lung Qi and Wei-Defensive Qi are inter-connected since the Lungs regulate Wei-Defensive Qi.

**Spleen Qi (Yang Qi).** The Spleen and its close partner the Stomach, control the transformation and transportation of food that regulates digestion. The Spleen and Stomach Qi eliminates Dampness and Phlegm (“waste” matter in the body) so if these organs are weak, this pattern will generate more mucous in rhinitis than other patterns. The Spleen is usually damaged from poor eating habits particularly cold and phlegm producing foods such as greasy foods or dairy.

**Kidney Qi (Yang Qi).** The Kidneys are the source of our genetic vigour, and the original source of essence and Qi. The Kidneys control the transformation of water, and send Qi to the Lungs (Giovanni Maciocia, 1989). If weak, this can be from constitution (genetic) and manifests often in childhood. Kidney deficiency develops from chronic illness, aging, or overwork, or can be hereditary. Kidney Qi is the foundation of Zheng-Upright Qi since Yuan-Original Qi, which stems from the Kidneys, is needed for Zheng-Upright Qi to function and be strong.

**Wind invasion.** Wind in TCM is the concept of pathogens in an external environment, and one cause of AR. Wind can come in many sub-types such as Wind-Cold, Wind-Heat, Wind-Damp, and Wind-Dry. Each subtype has its own differential diagnosis. Wind can invade various areas and meridians of the body through external means, such as the skin, acupuncture points,
channels, and collaterals. Wind can also manifest internally with its own differential diagnosis. This Wind is able to invade the nose when the Wei-Defensive Qi is inadequate in defending the body, and the allergens remain. The chronic itching and sneezing of rhinitis is due to the persistence of external Wind in the mucous membranes of the nose (Maclean, 1998). If the Wei-Defensive Qi is too weak to expel it, this Wind can remain in the nose for months or years (Maclean, 1998).

**Further description of TCM immunity.** The symptoms of rhinitis as discussed above, and TCM’s translation of what an “allergic” reaction is, equates to the defensive system (Wei-Defensive Qi) being too weak to fight off pathogenic factors. The defensive system in TCM is comprised of three different organ or meridian systems that work together to produce a person’s overall immunity. Each level or organ system plays a different role. At the base is our Kidney meridian system which provides Yuan-Original Qi, the constitutional Qi that one is born with. The Kidneys also produce Yang Qi, the clear and vibrant energy that helps a person thrive and fight. The Kidneys provides Yuan-Original and Yang Qi to the Spleen and Stomach meridian system. The Spleen and Stomach system take the Yuan-Original and Yang Qi, and combine it with Qi extracted from food, and produce Gu-Food Qi, which is sent to the chest, Lungs and Heart. This in turn provides strength and function to a person’s Wei-Defensive Qi and Blood, and contributes to a person’s Zheng-Upright Qi—one’s overall core immunity (see Figure 3). This Wei-Defensive Qi is the ‘first line of defense’ against external pathogens. Hence, AR, and Allergic Conjunctivitis in most cases, is a manifestation of a weak Wei-Defensive Qi—the Lung’s Wei-Defensive Qi is too weak to fight off the external pathogens from invading. TCM also views the nasal system as an extension of the Lung system.
The TCM Immune System: Zheng Qi – Upright Qi

- Kidney Essence
- Yuan – Original Qi (from Kidneys/LJ)
- Spleen Qi (MJ)
- Food
- Xue – Blood (and Ying – Nutritive Qi)
- Gu – Food Qi
- Xue – Blood (and Ying – Nutritive Qi)
- Zong – Gathering Qi (in the chest)
- Nourishes and regulates Lung Qi and Heart Blood
- Wei – Defensive Qi
  Lung Qi function (UJ)

FIGURE 3
TCM etiology of Allergic Rhinitis, definitions and classification of allergens in TCM.

Allergens in TCM are a form of external Wind. With respect to AR, the below are the most common TCM etiologies.

**Lung Qi deficiency.** Lung Qi deficiency is found in individuals who have constitutionally weak Qi, have a history of chronic Lung diseases, or who have damaged their Lung Qi with insufficient or excessive exercise (Maclean, 1998). Those individuals with weak Lung Qi tend to also have weak Wei-Defensive Qi and are therefore vulnerable to pathogenic invasions and retention of external Wind, which carries the pathogens or allergens.

**Kidney Qi deficiency.** This condition develops from a person’s hereditary constitution, chronic illness, aging, and overworking. If Kidney weakness is constitutional, the symptoms of allergic disease start in childhood. As mentioned above, the Kidneys play a role in the foundation of all the body’s central Qi—Zheng-Upright Qi, of which Wei-Defensive Qi is one branch.

**Spleen Qi deficiency.** This condition is usually created by poor eating habits and a diet of cold and phlegm producing foods. The weakened Spleen accumulates more damp and phlegm. The AR patient with this pattern will tend to generate more mucus than the others. Strong smells that trigger AR fall into this classification, as it not only disperses Qi and irritates mucous membranes, but also mobilizes Phlegm and Damp (Maclean, 1998).

**TCM Diagnosis.** See descriptions below and Figure 4.

**Wind-Cold.** This is the most common presentation of an acute episode of AR. Wind-Cold invades the nose which → obstructs the passage of normal Lung Qi and fluids, and irritates the mucous membranes, creating → clinical manifestations of:
• Sneezing, nasal itch, runny nose with copious thin watery mucous, or nasal obstruction.
• Reduced or loss of smell.
• Itchy, irritated, watery eyes.
• Worse with cold.
• Frontal or maxillary headache.
• Tongue Dx (T): normal or with a thin white coat.
• Pulse Dx (P): floating, or floating and tight.

(Maclean, 1998)

**Wind-Heat.** Another manifestation of an acute episode is Wind-Heat. Wind-Heat invades the nose, which obstructs the passage of normal Lung Qi and fluids, and irritates the mucous membranes, creating clinical manifestations of:

*Clinical manifestations.*

• Nasal obstruction sometimes severe, sometimes mild.
• Nasal discharge is profuse, sticky, thick with yellow or whitish colour.
• Headache, dry throat, cough, scanty and sticky sputum not easily expectorated.
• Nasal mucosa enlargement or reddish colour.
• T: red lingual margin with think white or thin yellow coat.
• P: floating and rapid.

(Maclean, 1998)

**Stagnated heat in the Lung meridian.** One of the most common causes of chronic allergic rhinitis is heat in the Lung meridian.

*Clinical manifestations.*
• Intermittent nasal obstruction.

• Low voice.

• Yellow and thick nasal discharge with sticky quality and scanty quantity.

• Pain and distention of head.

• Dry throat, cough, yellow, thick and scanty sputum not easily expectorated.

• Breathing with an open mouth.

• Restlessness which affects sleeping in severe cases.

• Enlargement of nasal concha.

• T: red, yellow coat.

• P: rapid or taut and rapid.

(Yan, 2002)

**Lung Qi deficiency.** Another one of the common causes of AR. Weak Lung Qi can lead to weak Wei-Defensive Qi since Wei-Defensive Qi is a subtype or extension of Lung Qi. The deficiency of Lung Qi and Wei-Defensive Qi predisposes an individual to frequent invasion of Wind (Maclean, 1998).

**Clinical manifestations.**

• Recurrent episodes of paroxysmal sneezing, nasal itch, copious clear watery nasal discharge or congestion.

• Symptoms aggravated by exposure to wind and cold air.

• Reduction or loss of smell.

• Frequent colds.

• Soft or low voice.
• Shortness of breath.
• Spontaneous sweating.
• Waxy, pale complexion.
• Worse condition if fatigued.
• May be a history of (or concurrent) eczema or asthma for atopic patients.
• T: pale with a thin white coat.
• P: deficient and weak.

(Maclean, 1998)

**Lung and Spleen Qi deficiency (with Phlegm/Damp).** This is a common pattern in children (though it still occurs in adults) and in Western society, which is often due to excessive consumption of dairy and sugar products. The main indication here is the quantity and persistence of mucus (Maclean, 1998).

*Clinical manifestations.*

• Recurrent episodes of relatively severe nasal congestion or persistent runny nose with thin watery or sticky white mucous.
• Nasal mucous is swollen, pale or ashen; nasal polyps are common here.
• Nasal itch and sneezing.
• Reduction or loss of sense of smell.
• Fullness and heaviness in the head, wooly headedness.
• Fatigue, listlessness.
• Aversion to cold.
• Tired limbs.
- Poor appetite, picky eater.
- Loose stools or diarrhea.
- T: pale or pale and swollen with tooth marks and white coat or white greasy coat.
- P: soft and weak.

(Maclean, 1998)

The Most Common TCM Diagnoses of Allergic Rhinitis

Kidney deficiency. Kidney deficiency is a very chronic problem, often presented from childhood, and frequently encountered with those that experience asthma and eczema. It may also evolve from a previous pattern. Depending on the constitutional and environmental factors, it may tend to Yin or Yang deficiency, with Yang deficiency being the more common condition.

Clinical manifestations.
- Many years of perennial nasal itch, congestion, sneezing, watery nasal discharge, all worse in the morning and evening, after sex or when fatigued.
- Reduction or loss of sense of smell.
- Nasal mucosa is pale, wet and edematous.
The patient may have no accompanying symptoms of Kidney deficiency if deficient Wei-Defensive Qi is its only manifestation.

(Maclean, 1998)

As mentioned, Zheng-Upright Qi has an intricate relationship with Blood and Ying-Nutritive Qi. Yet none of the classical Diagnoses of TCM include Blood deficiency as a possible reason for weak Wei-Defensive Qi and AR. Diving deeper into the model of Zheng-Upright Qi, in the classics of TCM, Wei-Defensive Qi requires Ying-Nutritive Qi to function.

Jeffrey Yuen, a TCM practitioner who comes from two Daoist lineages—the 88th generation of the Yu Qing Huang Lao Pai (Jade Purity Yellow Emperor Lao Zi School) and the 26th generation of the Quan Zhen Long Men Pai (Complete Reality Dragon Gate School)—also speaks about this needed concept from the classical texts in his lectures (Farrell, 2014 to 2015). This reference of the relationship of Wei-Defensive Qi and Ying-Nutritive Qi in the classics is illustrated with the classic formula Gui Zhi Tang (Cinnammon Twig Decoction) and its use in order to stabilize the Wei-Defensive and Ying-Nutritive Qi levels. When Wei-Defensive Qi is weak or damaged by exogenous pathogens, it fails to contain Ying-Nutritive Qi, which renders Ying-Nutritive Qi unstable and it and discharges to the surface (in the form of sweat) (Mitchell, Ye, & Wiseman, 1999). This activation of Wei-Defensive Qi to fight pathogens, renders Ying-Nutritive Qi weaker because Wei-Defensive Qi is using Ying-Nutritive Qi to support its defensive actions (D. Ni, 2016). In order to restore this harmony, in Gui Zhi Tang, herbs that nourish Ying-Nutritive Qi and Blood (e.g. Bai Shao – Radix Paeoniae Alba) are used in conjunction with those that strengthen Wei-Defensive Qi (Gui Zhi – Ramulus Cinnamomi
Cassia). From this, one is reminded that in order to stabilize Wei-Defensive Qi, strengthening Ying-Nutritive Qi and Blood is also necessary.

This idea originates from the model of Zheng-Qi that identifies three levels of Qi. On the most superficial level or upper jiao-burner, is Wei-Defensive Qi. In the middle level/jiao, is Ying-Nutritive Qi, and the lowest level/jiao in the body is Yuan-Original Qi (and how it operates). In *The Foundations of Chinese Medicine*, Giovanni Maciocia states, “…Wei-Defensive Qi has its roots in the lower jiao-burner (Kidneys), is nourished by the middle jiao-burner (Spleen and Stomach), and spreads outwards in the upper jiao-burner (Lungs).” (Giovanni Maciocia, 1989). Going further, Ying-Nutritive Qi is the Yang Qi aspect of Blood, and therefore Blood is connected at the level of Ying-Nutritive Qi. The close relationship is why Ying and Xue or Nutritive Qi and Blood are often described together. If Ying-Nutritive Qi (which is the Qi of the Middle Jiao) is weak, a weakness of both the upper and lower levels/jiaos will follow. In the upper level/jiao, a lack of Ying-Nutritive Qi, and its mutually-interdependent counterpart Blood, means that the Lungs and its Wei-Defensive Qi cannot adequately defend against pathogenic Wind. As mentioned, this can be seen with the use of *Gui Zhi Tang* when an instability or weakness of Ying-Nutritive Qi and Wei-Defensive Qi is unable to expel an exogenous Wind attack (Benskey & Gamble, 1986; Mitchell et al., 1999). In the lower jiao, Blood and Jing-Essence have the same source, so when Blood is insufficient due to middle jiao weakness, the body will depend on Kidney Essence to support the upper jiao function, which then depletes the Kidneys.

Blood deficiency is not a traditional diagnosis of AR, but a chronic weakness in the middle jiao which results in insufficient Blood production. Both Ying-Nutritive Qi (and
subsequent Wei-Defensive Qi), and the organs are dependent on Blood for nourishment. It is the author’s belief that a treatment approach of strengthening Blood along with Wei-Defensive Qi will render not only quicker results, but also longer lasting results with little to no recurrence over time.

The majority of TCM and acupuncture treatments for AR treat the Wei-Defensive Qi. However results have shown limitations in efficacy and longevity (Brinkhaus et al., 2004; Brinkhaus et al., 2013; Lee et al., 2009; Ng et al., 2004; Xue, English, Zhang, Da Costa, & Li, 2002). As mentioned, it is the author’s theory that what is often neglected in the TCM treatment of Wei-Defensive Qi, is that Wei-Defensive Qi needs Blood or Ying-Nutritive Qi in order to stay strong and to have longevity. This research explores this theory with a statistical historical case analysis.

A lesser-used yet still valid acupuncture framework of diagnosis is what many practitioners of TCM refer to as Channel Theory and others refer to at a more extensive level as the Balance Method, which is a further application of Channel Theory. The late Dr. Chao Chen interpreted the TCM and acupuncture classics, and discovered within them systems of balancing meridians to treat disorders (C. Chen, Chen, & Twicken, 2003). Dr. Chen documented these discoveries in his book I Ching Acupuncture (which is currently out of print) (C. Chen et al., 2003). This method of acupuncture meridian balancing and its use, is originally documented throughout the Yi Jing (I Ching) also known as the Book of Changes, as well as the Huang Di Nei Jing (Yellow Emperor Internal Medicine Classic). Dr. Chen studied these classics extensively, and was able to determine the use of the Yi Jing and their Ba Guas (Eight symbols or hexagrams) with acupuncture, and the various methods of balancing the meridians. Dr. Chen refers to this as
I Ching Acupuncture (C. Chen et al., 2003). I Ching Acupuncture is commonly taught and practices through other scholars and teachers as the Balance Method. Channel Theory at a deeper level is referred to as the Balance Method, where we diagnose and treat a syndrome according to the meridian affected, rather than from an Eight Principles (Ba Gang Bian Zheng 八纲辩证) diagnostic or Zangfu differentiation method, which many TCM practitioners believe is more useful for herbal prescriptions.

The late Dr. Richard Tehfu Tan, OMD, L.Ac., studied Dr. Chao Chen and also Master Tung’s works, and further studied these references in the classics such as the Huang Di Nei Jing (Yellow Emperor Internal Medicine Classic) and the Yi Jing. Dr. Richard Tehfu Tan then refined it into a systematic and logical approach to understanding and applying the Balance Method. Dr. Richard Tehfu Tan further created his own inventions and systems within the Balance Method, such as the 12 Magical points (Tan, 2003). Dr. Richard Tehfu Tan calls his whole system, the Richard Tan Balance Method. It comprises his accumulated knowledge and process of analyzing, diagnosing, and treating. Throughout the rest of this capstone, the author will refer to this entire body of knowledge from these individuals simply as, the “Balance Method”.

The Balance Method is a series of acupuncture systems rooted in the concept of healing the body by balancing meridians (Tan, 2003). This framework uses a diagnostic approach of the location of the illness or “sick” area, and determining what meridians are affected in that area (i.e. what meridians flow through that area). After assessing which meridians are affected and therefore determined “sick”, the respective meridians that can restore harmony to the “sick” ones are chosen to use for treatment and their respective acupuncture points based on this framework.
AR primarily affects anatomically the nose, and one could also add in the eyes since Allergic Conjunctivitis often co-presents with AR. From there, sticking with the classic Western definition of AR and the nose, the acupuncture primary meridians that flow to the nose are: the Large Intestine Hand Yangming, and Stomach Foot Yangming (Deadman & Al-Khafaji, 2000). While not obvious from its acupuncture point locations, the Liver Foot Jueyin meridian can also be considered to flow through the nose since the trajectory of the primary meridian ascends beyond the acupuncture points, up to the neck and posterior aspect of the throat, to the nasopharynx, to then link with the tissues surrounding the eye (Deadman & Al-Khafaji, 2000). If we were to include the eyes and Allergic Conjunctivitis, the primary meridians that flow to the eyes are: Urinary Bladder Foot Taiyin, Stomach Foot Yangming, Heart Hand Shaoyin, Small Intestine Hand Taiyang and Liver Foot Jueyin (Deadman & Al-Khafaji, 2000). For the purposes of this research, allergic conjunctivitis its associated meridians will not be discussed. Therefore for the nose, the anatomically assessed meridians that are “sick” and therefore referenced to treat and restore balance, are primarily the Hand and Foot Yangming meridians, and the Foot Jueyin meridian. Since this framework is not a basic fundamental system taught in TCM schools currently, the reasons for diagnosing and selecting the respective meridians to treat will be discussed in Chapter 5.

**Statement of Research Question Objective**

As mentioned above, TCM classifies AR into areas that involve Qi deficiency. There have been no areas of treatment that address Blood deficiency with AR, particularly in conjunction with Qi deficiency. It is the researcher’s theory that adding the strategy of strengthening the Blood to AR treatments, in addition to specific *Balance Method* meridians, will
create not just quicker results, but longer lasting efficacy and minimal recurrences. The purpose of this research is to explore the results of this novel approach to treating AR within the TCM and acupuncture context, with a statistical historical case analysis.

*The research objective of the author is to explore: A retrospective case series analysis on a novel acupuncture and Traditional Chinese Medicine diagnostic approach and its efficacy results in treating Allergic Rhinitis.*

**Chapter 2: Review of Literature**

The literature review topics covered here will include acupuncture in treating AR, and Chinese herbal medicine in treating AR. This capstone is to review retrospective cases, hence the review of the literature provided are for background, foundational and comparison measures that support the author’s hypothesis.

**Resources Engaged**

Resources used to find literature were PubMed, Google Scholar, Cochrane, and EBSCOHOST. The following MeSH terms/key word search used:

- allergic rhinitis acupuncture.
- allergic rhinitis Chinese herbs herbal medicine.
- acupuncture allergies.
- allergic rhinitis acupuncture therapy.
- traditional Chinese medicine TCM allergic rhinitis.
- traditional Chinese medicine allergic rhinitis.
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- Chinese medicine allergic rhinitis.
- allergic rhinitis Chinese herbs herbal.
- allergic rhinitis Chinese herbs.
- allergic rhinitis Chinese herbal medicine.
- allergies inflammation.
- inflammation aging.
- allergic rhinitis aging.
- allergic rhinitis inflammation aging.
- vaccinations allergic rhinitis.
- allergies allergy genetics genetic.

The researcher used EndNote to organize, categorize, and abstract all articles found. EndNote occasionally served as an additional database for article searches.

**Acupuncture and Allergic Rhinitis**

The majority of current approaches used to treat AR using acupuncture involve tonifying Wei-Defensive and/or Lung Qi as the base approach, while still incorporating some TCM pattern identification (Xue et al., 2002; Zhang, 2009).

Research has shown that acupuncture has mixed results in being effective at treating AR as noted in a systemic and literature review by Lee et al. (Lee et al., 2009) and KizhakkeVeettil et al. (KizhakkeVeettil & Fu, 2008). Some studies that have shown limited results in relief of symptoms, with symptoms returning at intervals of 10 weeks or each season (Ng et al., 2004). Some studies have shown that acupuncture led to statistically significant improvements in quality of life and reduction of antihistamine use compared to sham acupuncture and pharmaceutical
medication use alone (Reinhold et al., 2013; Xue et al., 2002). Other studies have shown that using a different approach of Yang Qi tonification methods may have positive results (Chan & Chien, 2014; Peng et al., 2012).

Past and current studies of acupuncture and Chinese Medicine to treat AR have shown limited benefits (Brinkhaus et al., 2013; Lee et al., 2009). These limitations are by the efficacy level and the time interval to obtain no symptoms before any recurrence. Other clinical trials concluded that there was no improvement (Magnusson, Svensson, & Leirvik, 2004).

Based on the current literature, the average efficacy of acupuncture in treating AR to the point of where it brings significant relief is an average of 8.5 weeks (see Table 2). Brinkhaus et al. in 2013, in a controlled trial, had measured the efficacy of acupuncture in treating AR using the Rhinoconjunctivitis Quality of Life Questionnaire (RQLQ) after 8 weeks. The trial showed statistically significant improvement of acupuncture over sham acupuncture, including at one year follow up (Brinkhaus et al., 2013). This study did not measure symptom abatement, but rather measured symptoms improvement. While acknowledging AR symptom improvements after 8 weeks of acupuncture treatment, as measured over two years, Brinkhaus et al did not find the results clinically significant (Brinkhaus et al., 2013).

In Xue et al. (2002), symptom severity was measured after a four-week period with a comparison of acupuncture and sham acupuncture, and they found statistically significant improvements with acupuncture (Xue et al., 2002). This study also did not measure complete abatement of symptoms, but rather, measured symptom improvement comparatively (Xue et al., 2002). In a study by Ng et al. (2004), a clinical trial was conducted with children, examining treatment of AR with acupuncture versus sham acupuncture. In this study, symptom severity was measured after 8 weeks of treatment and again at the 12 week follow-up. In a double-blind
randomized controlled trial, Ng et al. (2004) found that there was statistically significant improvement in the AR group treated with acupuncture, however the effects of acupuncture wore off after 10 weeks, raising the question of the need for repeat acupuncture treatments, and the optimal frequency and duration of acupuncture treatments (Ng et al., 2004). Reinhold et al similarly found that AR was statistically significant in improving AR symptoms over a mean treatment time of 12 weeks with a survey check at 8 and 16 week intervals (Reinhold et al., 2013).

**Current studies average weeks to symptom relief**

<table>
<thead>
<tr>
<th>STUDY</th>
<th>YEAR</th>
<th>WEEKS TO SYMPTOM RELIEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brinkhaus</td>
<td>2013</td>
<td>8 – but not complete abatement of symptoms</td>
</tr>
<tr>
<td>Xue</td>
<td>2002</td>
<td>4 – but not complete abatement of symptoms</td>
</tr>
<tr>
<td>Ng</td>
<td>2005</td>
<td>10 – children subjects</td>
</tr>
<tr>
<td>Reinhold</td>
<td>2013</td>
<td>12</td>
</tr>
</tbody>
</table>

*AVERAGE WEEKS TO SYMPTOM RELIEF: 8.5*

**TABLE 2**

**Traditional Chinese Herbal Medicine and Allergic Rhinitis**

There is very little published research showing the efficacy and longevity of Chinese herbal medicine and TCM in treating AR. The limitations of this may be that not many studies of this type have been conducted. Chan et al. conducted a double-blind randomized controlled clinical trial comparing two Chinese herbal formulations and a placebo group. In their study, they found statistically significant results measured by the RQLQ when using certain Chinese herbal formulas for treating AR (Chan & Chien, 2014). Further research is needed in the area of Chinese Herbal Medicine and AR.
It is the researcher’s belief that there is a “gap” in the studies where treatment is based on standard TCM diagnosis of the presenting symptoms, which yields generally good results. The researcher believes that if treatment was less conservative and more aggressive in their diagnosis, the treatment approach would then yield more efficacious results. In addition, the researcher believes that by incorporating a different meridian balancing diagnostic and treatment approach, the results would have quicker efficacy and yield longer term results.

More specifically, none of the classical diagnoses of AR in TCM include Blood deficiency as a possible reason for weak Wei-Defensive Qi. Hence, this area has not yet been studied. The researcher's clinical experience has shown that (a) adopting a different acupuncture and TCM approach, where as a base, a practitioner always tonifies Blood with Wei-Defensive Qi, and (b) incorporating a matrix system of balancing all relative meridians and imaging, yields not only improved therapeutic results with fewer to no recurrences, but also longer-lasting results with little to no new onsets over time. Thus, the intention of this research is to take a retrospective look at these pertinent cases in order to observe if this novel acupuncture and TCM approach can provide improved efficacy and longer-lasting results, with a statistical analysis of the historical results.

**Chapter 3: Methods**

The author’s research objective is to explore qualitative data, to quantify it, and present:

*A retrospective case review on a novel acupuncture and Traditional Chinese Medicine diagnostic approach and its efficacy results in treating Allergic Rhinitis.*

**Statement of Methodology**
A retrospective case series analysis on a novel acupuncture and TCM diagnostic and treatment approach, and its efficacy results in treating AR.

Cases were developed in the author’s private clinic from 2006 to 2015. There was no recruitment involved since this is a retrospective study.

**Subject inclusion criteria.**

Inclusion criteria of patient cases were:

- Chief complaint of hayfever/allergic rhinitis.
- Intermittent or persistent AR.
- Chinese diagnosis translation of AR.
- Adults 18 years of age or older.
- Male and female.
- No ethnic discernment.
- All durations.
- Minimum three treatments performed.

**Subject exclusion criteria.**

Exclusion criteria of patient cases:

- Anyone receiving immunotherapy injections.
- Anyone taking anti-histamines on a regular basis.
- Pre-existing Lung conditions e.g. chronic bronchitis, super infection of the Lungs, upper respiratory infections (Note: asthma was considered an acceptable pre-existing condition because it has a connected relationship with AR).
- No present infection or inflammatory condition.
- Anyone taking TCM herbs from other practitioners or sources.
- Anyone receiving Acupuncture from other practitioners.
Thirteen cases met these criteria. Data was extracted and analyzed in Microsoft Excel. Graphs were generated from the 13 patients of the retrospective cases pulled, graphing data on the number of weeks to no symptoms, number of weeks to first recurrence (new onset), and number of recurrences over time (see Appendix B). In addition graphs were generated to compare the acupuncture treatment strategies (see Appendix B).

**Treatment: Acupuncture.**

*Base Blood tonifying acupuncture approach to tonify Zheng-Upright Qi.* The acupuncture points used were partly uniform to all and partly individualized, which is the core of TCM. Even if only one sign showed a possible Blood deficient situation, while this would not normally be enough in classical TCM to diagnose for Blood deficiency, blood tonifying points were used. The author proposes that one sign is enough, and in fact, no signs are necessary because a practitioner of TCM treating AR should strengthen Blood and add in tonifying Blood points consistently. This is because the author theorizes that the treatment should support Blood—not because it is deficient but instead because Blood nourishes Wei-Defensive Qi and aids in dispelling Wind, the primary pathogen in AR. The base Blood points used were: Urinary Bladder (UB) 17, UB 20, UB 18, UB 23.

The researcher would also add points relevant to the diagnosis of the patient. For example, points to help treat the Lungs and Wei-Defensive Qi. Alternatively, if the patient also had Phlegm or Dampness (such as significant nasal congestion due to Phlegm), the relevant points were added (such as UB 13, GB 20). However, with respect to acupuncture points added in later retrospective cases, the researcher was mindful not to interfere with the *Balance Method* Meridian-Conversion approach that was used as a secondary base of treatment.
Balance Method approach. The next main acupuncture treatment approach incorporated was a set of meridians originating from the late Dr. Chao Chen’s work from the *Huang Di Nei Jing* and *Yi Jing (I Ching)* as mentioned. This method is referred to as “Meridian-Conversion.” In particular, the main meridian balancing used from this method was the “Taiyin-Yangming III-VI”. The points used in this system are unilateral, and the sides can be alternated depending on the symptoms of the patient. The base points used are: LU 5, LU 9, LI 11, LI 3, ST 36, ST 43, SP 9, SP 3. These points are used unilaterally, and alternated in a Yin-Yang balance circle clockwise or counterclockwise (see Figure 5).

**Taiyin-Yangming III-VI arrangement**

![Taiyin-Yangming III-VI arrangement diagram](image)

By using the Blood tonifying approach, the researcher that believes she created a novel strategy for quicker efficacy and greater longevity in treating AR. Moreover, by combining both the Richard Tehfu Tan Balance Method Taiyin-Yangming meridian-conversion points, and the Blood tonifying points, the author believes this created further efficacy and longevity in treating AR, and is calling this approach the “*Tan Strong Blood Strong Immunity*” approach or “*Tan Bu Xue Bu Zheng*” in Mandarin.

**Treatment: Chinese herbs.** At the core of all the herbal prescription was the author’s development of her own formula over time with the concept that Wei-Defensive Qi needed Blood tonics to perform better. A formula was perfected over the years through thought and
practice, and named “Tan Bu Xue Bu Zheng (Tang)” or “Tan Strong Blood, Strong Immunity (Zheng-Upright Qi) (Decoction).” This formula was based on a classic formula called “Bu Zhong Yi Qi Tang” and was modified to include Blood tonics. It is the author’s belief that by treating for Blood, namely strengthening Blood, then Wei-Defensive Qi and Zheng-Upright Qi is stronger and functions better and more quickly, in addition to creating greater longevity for Wei-Defensive Qi and Zheng-Upright Qi. Bu Zhong Yi Qi Tang was chosen due to its strong tonifying and lifting action of the Spleen Qi in TCM. In addition, Huang Qi (Radix Astragali Membranaceus (AM) or Astragalus) is known for its strong Zheng-Upright and Wei-Defensive Qi strengthening actions in TCM. Moreover, in Western Medicine, evidence indicates that Astragalus is capable of enhancing lymphocyte blastogenesis and stimulating macrophage activation without cytotoxic effects (Zhuge et al., 2012). Astragalus polysaccharide (APS), extracted from AM, has an extensive effect on alleviating immune stress and activating the immune system by clearing the immune system (Zhuge et al., 2012).

Table 3 (below) describes the formula Tan Bu Xue Bu Zheng (Tang), including each herb’s function and pharmacological effect.

<table>
<thead>
<tr>
<th>HERB – Pinyin name (Pharmaceutical name)</th>
<th>FUNCTIONS (Benskey &amp; Gamble, 1986; J. K. Chen &amp; Chen, 2001)</th>
<th>PHARMACOLOGICAL EFFECTS (J. K. Chen &amp; Chen, 2001)</th>
</tr>
</thead>
</table>
### Bai Zhu (Rhizoma Atractylodis Macrocephalae)
- **Promotes discharge of pus and generates flesh.**
- **Treats Xiao Ke (Wasting and Thirsting) syndrome.**
- **Antibiotic.**
- **Sedative and analgesic.**
- **Tonifies the Spleen and Qi.**
- **Strengthens the Spleen and dries dampness.**
- **Stabilizes the exterior and stops spontaneous sweating.**
- **Strengthens the Spleen and stabilizes pregnancy.**
- **Adaptogenic.**
- **Immunostimulant.**
- **Gastrointestinal modulator at low doses treats diarrhea, high doses treats constipation.**
- **Antiplatelet.**
- **Diuretic.**
- **Antidiabetic.**
- **Antineoplastic.**

### Shan Yao (Radix Dioscoreae Oppositae)
- **Tonifies Qi, Nourishes Spleen and Stomach Yin.**
- **Tonifies the Lung Qi and Yin.**
- **Tonifies the Kidney Yin and also stabilizes and binds.**
- **Treats Xiao Ke (Wasting and Thirsting syndrome).**
- **Antidiabetic.**
- **Intestinal stimulation and increases peristalsis.**

### Gan Cao (Radix Glycyrrhizae Uralensis)
- **Tonifies the Spleen and benefits Heart Qi.**
- **Moistens the Lungs and stops coughing.**
- **Clears heat and relieves toxins.**
- **Moderates spasms and alleviates pain, Moderates and harmonizes the adverse effects other herbs.**
- **Mineralocorticoid.**
- **Glucocorticoid.**
- **Anti-inflammatory.**
- **Antiarrhythmic.**
- **Immunologic.**
- **Gastric acid modulator.**
- **Antispasmodic.**
- **Antitoxin.**
- **Hepatoprotective.**
- **Antitussive and expectorant.**
- **Analgesic.**
- **Antibiotic.**
- **Antihyperlipidemic.**

### Dang Gui (Radix Angelicae Sinensis)
- **Tonifies the Blood and regulates menses.**
- **Invigorates and harmonizes Blood, relieves pain.**
- **Moistens the Intestines and unblocks the bowels.**
- **Effect on the uterus.**
- **Cardiovascular (various).**
- **Antiplatelet.**
- **Immunostimulant.**
- **Respiratory.**
- **Hepatoprotective.**
### A retrospective case series analysis on a novel acupuncture and TCM diagnostic and treatment approach, and its efficacy results in treating AR. | S.F.Tan

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stops cough and treats dyspnea.</strong></td>
<td><strong>Antibiotic. Analgesic and anti-inflammatory.</strong></td>
</tr>
<tr>
<td><strong>Da Zao</strong></td>
<td>Tonifies the Spleen and Qi. Nourishes the Blood.</td>
</tr>
<tr>
<td>(Fructus Zizyphi Jujubae)</td>
<td>Calms the Spirit. Moderates the harsh properties of other herbs.</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------------------------</td>
</tr>
</tbody>
</table>

**TABLE 3**
Chapter 4: Results

The statistics base that this study used was measuring weeks to no symptoms as the efficacy measure and measuring the overall recurrence timeframe. This efficacy was matched and compared with current clinical trials with similar populations and parameters. Due to the retrospective case structure, it was not possible to ascertain whether no further follow-up constituted no further symptoms. While patients were asked to follow-up at a certain timeframe or if they had symptoms remaining, it was assumed that no follow-up equalled no symptoms, unless recorded at the follow-up as such. Some patients reported no symptoms and came for only for tune-ups. Others did not follow up. This assumption lead the research to deduce that due to the nature of the study, statistically significant P values could not be generated.

In looking at significance and efficacy, as measured by how many weeks it took to obtain no symptoms, the current literature shows an average of 8.5 weeks to no symptoms (see Tables 2 and 4.1). In addition, the longevity of symptom relief was measured by the number of recurrences or “new onsets” in the years following treatment. The researcher added the following diagnosis and treatment principle to all treatments, and proposes that it is a more aggressive treatment with more effective results—tonify Blood in all treatments, no matter how many TCM diagnostic signs of Blood deficiency (if any) were observed. Two methods of acupuncture were applied; however, both methods used the Blood tonifying within the treatments.

The results show that when the Balance Method was used at the onset of visits, it took an average of 5.8 weeks for patients to have no symptoms. This produces an efficiency of 32% compared to the previous studies’ average. When patients were treated with the Blood Method
A retrospective case series analysis on a novel acupuncture and TCM diagnostic and treatment approach, and its efficacy results in treating AR. | S.F. Tan

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(i.e. in cases where the *Balance Method* was not used at the beginning of the course of treatments), it took an average of 3.9 weeks for patients to have no symptoms, for a 55% efficiency compared to the previous studies average (see Table 4.1).

**Efficiency comparison of Blood Method and Balance Method with current studies**

<table>
<thead>
<tr>
<th>APPROACH AT START (ALL HAD BLOOD TX)</th>
<th>WEEKS TO NO SYMPTOMS</th>
<th>EFFICIENCY (DIFFERENCE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparison: Current studies (see Table 2)</td>
<td>8.5</td>
<td>---</td>
</tr>
<tr>
<td>Balance Method with Blood Method approach at start</td>
<td>5.8</td>
<td>32%</td>
</tr>
<tr>
<td>Blood Method approach only at start, with possible addition of Balance Method</td>
<td>3.9</td>
<td>55%</td>
</tr>
</tbody>
</table>

**TABLE 4.1**

Furthermore, data assessed treatment longevity, or which acupuncture approach at the beginning of the treatment course, along with the base Blood tonifying approach, results in: a) no recurrences and b) at what rate. With the *Balance Method* at the start of the treatment course, it took an average of 57.4 weeks until no further onset was reported. With the Blood Method approach at the start of treatments, it took an average of 114.6 weeks until no further onset was reported (see Table 4.2).

**Long-term efficiency comparison of Blood Method and Balance Method**

<table>
<thead>
<tr>
<th>APPROACH</th>
<th>WEEKS TO NO FURTHER RECURRENCE</th>
<th>EFFICIENCY (DIFFERENCE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance Method with Blood Method approach at start</td>
<td>57.4</td>
<td>50%</td>
</tr>
<tr>
<td>Blood Method approach only at start, with possible addition of Balance Method</td>
<td>114.6</td>
<td>---</td>
</tr>
</tbody>
</table>
A retrospective case series analysis on a novel acupuncture and TCM diagnostic and treatment approach, and its efficacy results in treating AR.

While it is not the focus of this study to assess the efficacy of the herbs and the Blood tonifying approach of herbs in treating AR, the data was recorded due to the fact that some of the cases received the special herbal formulation Tan Bu Xue Bu Zheng (Tang) at some point during the course of their treatments, and one case had only received herbs for AR, without acupuncture. This patient received herbs for a three-week course, did not receive an acupuncture treatment specific for AR, as the patient was concurrently being treated for low back pain. This patient reported no further symptoms after the three-week course of the special herbal formula. The author notes that other cases where patients received herbs in addition to the acupuncture, would have an impact on the study’s results and efficacy, and limitations of this are further discussed in Chapter 5.

Chapter 5: Discussion

Summary of Findings

The Tan Strong Blood Strong Immunity Approach with both methods of acupuncture has an average of 43.5% efficiency compared with the current studies. The Balance Method combined with the Blood tonifying approach has a 32% efficiency, and the Blood Method (at the start of the course of treatments) approach shows a 55% efficiency in reaching no symptoms. Interestingly, the Balance + Blood Method (at the start) shows longer lasting effects, achieving abatement of symptoms and no further onset at a 50% greater efficiency versus just Blood tonifying (at the start) alone. It was surprising to the researcher that the Balance Method did not have quicker efficacy at short-term follow-up, and longer lasting results were achieved when both the Blood + Balance Method were used at the start of a course of treatments. Results

TABLE 4.2
showed that using a more aggressive TCM diagnostic and treatment approach of strengthening Blood, will yield both quicker relief and better long-term outcomes for patients with Allergic Rhinitis (AR), which was in alignment with this study’s initial hypothesis. Patients can possibly achieve complete elimination of symptoms with no further onset with this approach. These results are a significant and present a more efficacious change than what has been observed in previous studies.

The findings suggest that a novel diagnostic and treatment approach should be considered to provide greater outcomes in treating AR. The results are significant because by adding in this Blood tonifying approach, the treatment is supplementing the nutritional foundation of Wei-Defensive and Zheng-Upright Qi. By strengthening the Ying-Nutritive Qi through Blood, the treatment strengthens and supports the overall Wei-Defensive and Zheng-Upright Qi. Moreover, the treatment is strengthening the Wei-Defensive and Zheng-Upright Qi at a quicker rate because it adds to the nutritional source of what Wei-Defensive and Zheng-Upright Qi need to be strong. Hence, if the treatment can strengthen not just Wei-Defensive and Zheng-Upright Qi, but the foundation of its strength, that is Blood, it can have more efficacious results as shown in this retrospective case series. Furthermore, since the treatment is strengthening Blood to augment Wei-Defensive and Zheng-Upright Qi, it creates a stronger foundation to help Wei-Defensive and Zheng-Upright Qi thrive. This is analogous to providing back-line support to the front-line troops. By doing this, the treatment creates better longevity of the function of Wei-Defensive and Zheng-Upright Qi, and they can then sustain optimal function levels for a longer period of time, if not infinitely.

**Using Base Blood Tonifying Acupuncture Points to Tonify Zheng-Upright Qi**
As mentioned above, the acupuncture points used were partly uniform to all patients and partly individualized, which is a common feature of TCM. *All the treatments had a core focus on using Blood tonifying points, because it is the author’s belief that by nourishing blood, the Wei-Defensive Qi is strengthened and functions better and more quickly.* Even if there was only one possible sign of Blood deficiency, while not normally enough in classical TCM to diagnose for Blood, the author treated for Blood. The base Blood points were used for the following reasons:

- **Urinary Bladder (UB) 17:** Back-Shu point of the diaphragm and Hui-Meeting (Influential) point of the Blood—used for all types of Blood diagnoses, whether deficiency or excess due to its ability to invigorate Blood and dispels stasis as well as its ability to nourish and harmonize the Blood (Deadman & Al-Khafaji, 2000). The researcher chose to use this point consistently to nourish Blood.

- **UB 20:** Back-Shu point of the Spleen—used for all types of TCM Spleen diagnoses, including tonifying Spleen Qi and yang, raising Spleen Qi, and holding Blood (Deadman & Al-Khafaji, 2000). The Spleen in TCM produces Blood and the researcher chose to consistently add this point to tonify Blood and to support the Lungs and Zheng-Upright Qi.

- **UB 18:** Back-Shu point of the Liver—used for all types of TCM Liver diagnoses, including regulating and nourishing Liver Blood (Deadman & Al-Khafaji, 2000). In TCM, the Liver stores Blood, and the researcher chose to consistently add this point for nourishing and storing Blood.

- **UB 23:** Back-Shu point of the Kidneys—used for all types of TCM Kidney diagnosis, including tonifying the Kidneys, fortifying Yang, and benefitting Jing-Essence (Deadman...
& Al-Khafaji, 2000). The researcher chose to consistently add this point for tonifying Blood because Jing-Essence is a source of Blood production.

The author also added points as relevant for the diagnosis of the patient. For example, the treatment included points to help treat the Lungs and Wei-Defensive Qi or if the patient also had Phlegm or Dampness (such as significant nose congestion due to phlegm). However, in reference to points added in the later retrospective cases, the author was mindful not to interfere with the Balance Method Meridian-Conversion approach that was used as another base of treatment.

Looking again at the layers of Zheng-Upright Qi (see Figure 3), when toxins or (in this case) allergens, enter the body, they enter through the Wei-Defensive Qi, and the Wei-Defensive Qi follows the toxins/allergens inwards. Once recognized as toxins or allergens, the Wei-Defensive Qi (which is Yang in nature) generates heat, which then causes the some of the symptoms of the allergies and aggravates others (Farrell, 2014 to 2015). This is an attempt to rid the body of the allergen.

If Wei-Defensive Qi cannot rid the body of the toxin or if there is repeated exposure, the Wei-Defensive Qi engages the Ying-Nutritive Qi and Blood for support (Farrell, 2014 to 2015). Ying-Nutritive Qi sends Blood to the surface, which causes flushing and redness—but the increased vascularity helps the Wei-Defensive Qi to defend (Farrell, 2014 to 2015). The body is supposed to naturally maintain a state of harmony between Ying-Nutritive and Wei-Defensive Qi. However, repeated exposure to toxins, allergens, or “Wind” in TCM can deplete Wei-Defensive Qi, which then requires the support of Ying-Nutritive Qi/Blood. Eventually the Ying-Nutritive Qi/Blood can also become depleted from a chronic situation.
Ying-Nutritive Qi/Blood provides the nutrients that support the Wei-Defensive Qi and the foundation for the Wei-Defensive Qi to thrive and survive long-term. Thus, in order to have faster and longer efficacy with AR, this retrospective case series’ results prove the author’s hypothesis that by tonifying Blood and Ying-Nutritive Qi along with Wei-Defensive Qi, outcomes will improve.

This basic theory as mentioned, is also seen in the *Pi Wei Lun*, by showing that a practitioner must tonify the Spleen to effectively tonify the Lungs. In the Book 1, Chapter 4 of TCM classic *Pi Wei Lun* by Li Dong-Yuan, Dr. Li explains that the Lungs will be most severely afflicted when the Spleen and Stomach are vacuous, and it is thus necessary to strengthen the Spleen and Stomach to bring good Qi to the Lungs (Flaws, 2004). One can also deduce from this relationship, that since the Spleen produces Blood in TCM, that the Lungs and the Wei-Defensive Qi would benefit from a strong Spleen and subsequent Blood. Alternately, if Blood is weak, Lungs and Wei-Defensive Qi will be weak. Furthermore, when the Spleen and Stomach produce Gu-Food Qi, Gu-Food Qi is then lifted to the Lungs to support its functioning, and also goes to the Heart where it is transformed into Blood. This further supports the framework as mentioned that Wei-Defensive Qi has its roots in the lower jiao-burner (Kidneys), is nourished by the middle jiao-burner (Spleen and Stomach) and spreads outwards in the upper jiao-burner (Lungs) (Giovanni Maciocia, 1989). This relationship between the Spleen, transforming Food Qi and lifting it to the Lungs to function, and to the Heart to produce more Blood, illustrates the importance of the Spleen and Stomach in the body’s defensive system, and the overall levels of Qi and Blood in the body (Farrell, 2014 to 2015; Giovanni Maciocia, 1989). As mentioned, this
theory can be illustrated by the use of Gui Zhi Tang to treat a weakness of Wei-Defensive Qi and disharmony with Ying-Nutritive Qi (Benskey & Gamble, 1986; Mitchell et al., 1999).

From another TCM theoretical framework, Wind is classically treated by using Blood points such as UB 17 and SP 10 with the knowledge that wind is more effectively dispersed from the body when there is sufficient Blood and adequate circulation (Deadman & Al-Khafaji, 2000). The classics of Chinese Medicine state that “to treat wind first treat the blood; once blood moves wind will be dispelled” (Deadman & Al-Khafaji, 2000). Blood has both a nourishing and stabilizing function that leaves no place for Wind to reside. A deficiency of Blood creates an empty space within the blood vessels which is “filled” by Wind, which can lead to both exterior and interior Wind situations (Giovanni Maciocia, 1989). Essentially, in order to eliminate Wind, the body needs not only sufficient blood, but also good circulation (Deadman & Al-Khafaji, 2000; Farrell, 2014 to 2015). The approach of using Blood to treating Wind is more commonly used in TCM dermatology as well as internal Wind patterns such as strokes than in AR.

The explanation above supports the researcher’s hypothesis and is demonstrated by the results, showing that the more assertive Tan Strong Blood Strong Immunity Approach – Tan Bu Xue Bu Zheng approach provides better outcomes and a lasting approach to treat AR. Moreover, the results show a practitioner does not need any signs of Blood deficiency to support Blood, because it is not about a deficient Blood situation, but rather because Blood nourishes Wei-Defensive Qi and aids in dispelling Wind.

This study uses an approach not normally considered, an approach that could be considered “aggressive” to use. This is because in these cases, there were only one or two possible signs of Blood deficiency, such as a pale tongue or pale face, but no other signs that
would create a firm diagnosis of Blood deficiency. The diagnostic and treatment approach of *Tan Bu Xue Bu Zheng – Tan Strong Blood Strong Immunity Approach* is different. While it may be considered inappropriate to treat for unseen diagnoses, the assertion of this approach has been seen in other medical professions, such as the world surgical approaches to Gastric Adenocarcinoma.

With respect to Gastric Adenocarcinoma, the treatment approaches in Japan and North America are quite different. In North America, the assessed stage of cancer is pathologically and clinically used to determine the treatment with a standardized approach. In Japan, the assessment and treatment is more aggressive—they take out more lymph nodes than in the United States at the equivalent stage. The Japanese treat stages more aggressively. The results have shown that patients in Japan with extended lymph node dissection, produced an overall 5-year survival of 50% to 62% versus the 15% to 30% obtained for limited resections in the United States (Dicken et al., 2005). So in fact, an “aggressive” or rather assertive diagnosis and treatment approach can improve outcomes.

This approach could also be looked at as anticipatory, where Blood will suffer when the middle jiao-burner and Ying-Nutritive Qi are weakened due to Wei-Defensive Qi being attacked. The primary pathogen of AR is exogenous Wind, so if the practitioner supports the generation and circulation of Blood, Wind has no place to reside and the episodes will resolve more quickly and not have a place to return to. While aggressive treatment could be considered a limitation, the author believes it also has an assertive positive effect, and should be looked at as an opportunity for growth to improve outcomes.

**The Balance Method Approach**
The results gained further efficiency by adding in the *Balance Method* approach of “Taiyin-Yangming III-VI”. At the onset, the meridians do not seem relevant according the “Eight Principles and Zangfu” method of Acupuncture and TCM that is traditionally taught in modern TCM schools, however this relevance will be further explained.

As stated in Chapter Three, by combining the Balance Method Taiyin-Yangming meridian points and the Blood tonifying points, the author believes she created a novel approach for quicker efficacy and greater longevity, and is calling this approach the “*Tan Strong Blood Strong Immunity Approach*” or “*Tan Bu Xue Bu Zheng*” in Mandarin pinyin.

The *Balance Method* of “Taiyin-Yangming III-VI” is used for a) strengthening and balancing the immune system and b) treating the eyes, the area below the eyes, and the lower abdomen area. These sets of points are based on a complex and sophisticated system based on *Ba Gua* (Eight symbols) allocation of meridians, and on restoring harmony using different strategies of balancing them based on classical *Yi Jing* and TCM. A Gua hexagram is used, which is formed from two trigrams, which are formed from a binary system of classifying Yin and Yang.

One of the many ways the Chinese viewed and evaluated the energetics of life is from Yin-Yang theory. The *Yi Jing* begins with this Yin-Yang theory explanation using bars in a binary fashion, and then expands them into Trigrams, then a Hexagram, and eventually an arrangement called *Ba Gua* (Eight Symbols) which incorporates the hexagram into a specific arrangement of the eight symbols to represent the balance of Yin and Yang (see Figure 6). Each of these trigrams exemplifies a natural virtue (H.-C. Ni, 2007). The hexagrams or *Guas* and their representation of the changing nature of Yin and Yang, is a foundation for the theory of the use of the *Ba Gua* and the *Balance Method*. In this system, each meridian has its own Gua (hexagram).
In ‘Meridian-Conversion’, the meridian and its respective Guas, in addition to the points chosen, can be used to balance conditions in their own meridian and organs, and also to influence channels to which they are connected, based on acupuncture or channel theory (Twicken, 2012).

As mentioned, the Balance Method strategy originates from the Huang Di Nei Jing, Yi Jing and the Ba Gua, Five Element/Phases theory. Dr. Wei-Chieh Young, L.Ac., Dr. Chao Chen, L.Ac., and Dr. Richard Tehfu Tan, L.Ac., OMD, were able to interpret and apply the systems for use in an empirical way. Dr. Richard Tehfu Tan also added new innovations to this system (Tan, 2003, 2004 to 2015). As mentioned, Dr. Richard Tehfu Tan’s resulting compilation, explanation of the systems of balancing, and his own innovations are called collectively the “Richard Tehfu Tan Balance Method” and include more than just the Meridian-Conversion approach used in this research. The author has studied the Richard Tehfu Tan Balance Method since 2004 and practiced exclusively using the Richard Tan Balance Method since 2008 and is one of his Certified Gold Level Practitioners. The strategy is called “Taiyin-Yangming”, due to the respective meridians involved, namely the Hand Taiyin, Foot Taiyin, Hand Yangming, and Foot Yangming meridians. The points used are specific for two reasons: 1) they represent an image and mirror system of the face which then corresponds to the area of the eyes, below the eyes, and lower abdomen, 2) they use a “meridian-conversion” using a Gua to create a new energetic balance in that whole meridian, which then creates strength.

The Balance Method system is a sophisticated system whereby one can achieve “instant results” using a different lens of how to use acupuncture. It is not the purpose of this research to explain every step and detail of how this was created and works. For that, the author suggests taking Dr. Richard Tehfu Tan’s series of Balance Method courses. However, the author will
present the information necessary to understand why this particular strategy within the Balance Method was used, and why it works.

As mentioned, the Balance Method is a system discovered and developed by Dr. Chao Chen and further refined by Dr. Richard Tehfu Tan. This discovery and development is founded in part from the classic Chinese literature of the Yi Jing (pinyin) also widely known as I Ching (Wade-Giles translation) translated as The Book of Changes, which speaks about the cycles of Yin and Yang (Tan, 2004 to 2015; Twicken, 2012). Secondly, it comes from the TCM classic, the Huang Di Nei Jing (Yellow Emperor’s Internal Medicine Classic), which describes the classification and treatment of Acupuncture meridians with respect to the Ba Gua (Tan, 2004 to 2015; Twicken, 2012). Third, it comes from the Five Element/Phases theory (Tan, 2004 to 2015; Twicken, 2012). The Balance Method strategy takes out the complexities of the classics’ explanations, and concisely and systematically lays out the framework for diagnosing and treating a “sick” meridian. While there is no consensus regarding the time origins of Yin-Yang theory and the Five Phases (aka Elements), historians do agree that these two ideas were integrated with other major models of Chinese metaphysics during the Warring states period of the Zhou Dynasty (c. 1045-221 BC), marking the start of the common Chinese Medicine practiced today (Twicken, 2012). Using Yi Jing with acupuncture is a system that has been around at least since this time. The famous classical Chinese Medicine physician Sun Simiao (c. 581 AD), who is known to have studied the Yi Jing extensively (Dharmananda, 2001), has been quoted as saying in his book (written c. 652 AD) the Bei Ji Qian Jin Yao Fang 备急千金要方 (Prescriptions Worth a Thousand in Gold for Every Emergency), “In order to understand Chinese Medicine and Acupuncture, you have to study the Yi Jing.”
During the Zhou Dynasty, acupuncture meridian systems were introduced into the *Fu Xi Ba Gua* (Tan, 2004 to 2015; Twicken, 2012). Yang Guas were paired with Yang meridians, and Yin Guas with Yin meridians. To understand the structure of the Guas pertaining to the meridians, one must first look at their origins. In a commentary on *The Book of Changes*, Confucius wrote: “From the limitless Wu Ji 無極 comes the absolute Tai Ji 太極, which generates the two polarities: Yin 隱 and Yang 陽); the two polarities generate the four appearances (Greater Yang or Taiyang 太陽, Diminished Yang or Shaoyang 少陽, Greater Yin or Taiyin 太陰 and Diminished Yin or Shaoyin 少陰), and the four appearances generate the eight trigrams” (*Fu Xi Ba Gua*) (Alfaro, 2014; Tan, 2004 to 2015). As with many Chinese theoretical frameworks, this was developed over thousands of years of observation and application.

*Structural origin of the Guas*

![Diagram of Wu Ji and Tai Ji](Wikipedia, 2007)
TCM practitioners know that each organ system has an original Chinese name, which is in fact based on this *Fu Xi Ba Gua* system. The *Fu Xi* (伏羲, named after a sovereign) *Ba Gua* is also known as the Early Heaven Sequence or Arrangement. There is also a *Wen Wang Ba Gua* also known as the King Wen or Later Heaven Sequence/Arrangement that is used for acupuncture meridian classification and balancing. Approximately 2,500 years ago during the *Zhou Dynasty*, acupuncture meridian systems were introduced into the *Fu Xi Ba Gua* (Tan, 2004 to 2015; Twicken, 2012). Yang Guas were paired with Yang meridians, and Yin Guas with Yin meridians (see Figure 7). So, using the meridians above that have diagnosed as “sick” pertaining to AR, one would select the Large Intestine, which is the Hand Yangming, the Stomach, which is the Foot Yangming, and the Liver, which is the Foot Jueyin.

*The Fu Xi Ba Gua and associated acupuncture meridians*

![Fu Xi Ba Gua Diagram](image_url)

*FIGURE 7*  
(Alfaro, 2014; Tan, 2004 to 2015)
The first step in the Balance Method is an anatomical assessment. Rhinitis is anatomically related to the nose, and also the eyes, since conjunctivitis often co-presents with allergic rhinitis. From there, looking at the acupuncture meridians that flow to the nose, one can see that those meridians are: Large Intestine Hand Yangming, Stomach Foot Yangming, in addition to the less obvious Liver Foot Jueyin (Deadman & Al-Khafaji, 2000). In the Balance Method, all meridians have an associated Gua.

Next is concept of holography. Holography, or imaging and mirroring, comes from the theory of Tai Ji and Yuan-Original Qi from the Yi Jing (Alfaro, 2014; Twicken, 2012). This concept has been referred to by one scholar, Wei-Chieh Young, as Ti Ying Quan Xi (Tissue Correspondence Holographic Model), who explains that these theories are rooted and referenced in the Huang Di Nei Jing (W. C. Young, Chang, & Morris, 2003). Dr. Wei-Chieh Young, L.Ac. further discussed holography in his book Lectures On Tung’s Acupuncture Therapeutic System (W.-C. Young, 2008). Holography is a mapping system that is termed Quan Xi in Chinese. Translated as ‘complete message,’ ‘whole information,’ ‘holographic,’ or ‘microsystem,’ some practitioners consider Quan Xi to be the core theoretical basis for acupuncture (W. C. Young et al., 2003). The Chinese believe that there is a relationship between Tian-Heaven 天, also referred to as “the Universe” and Ren-Man 人, also referred to as “a person or human”. In fact, Confucian scholars state that “man exists in the Universe, and the Universe exists in man” (Alfaro, 2014). Many areas of TCM believe that human body parts are miniature organic structures of the whole body such as with Auricular acupuncture, reflexology, and diagnosis of the tongue. The Tai Ji of the human body takes the umbilicus as the core. Extending from there, one can treat the arms and legs as representations of the torso, as well as representations of the
face, with the umbilicus and eyes equaling the level of elbows and knees (see Figures 8a, 8b, and 8c). What this represents is a system of choosing points on a particular meridian, according to the “image” it corresponds to. This concept of Holography or Mirror and Imaging is one of the foundations of the Balance Method (Alfaro, 2014; Tan, 2004 to 2015). The choice of which meridian to use is of most importance, in addition to choosing the appropriate side and image site.

Holography, or imaging and mirroring concept

![Holography Image](image-url)
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The next concept from the *Tai Ji* used is the *Six Channel Balance*. Within the *Balance Method*, there are a variety of ways that one can choose which meridians should help the “sick” meridian, and furthermore, there are certain strategies for choosing appropriate points. For simplicity and relevance, details of such are not the focus of this capstone. However, the use of Taiyin and Yangming meridians and their efficacy in these cases will be further discussed. As mentioned, many practitioners of TCM also refer to this approach as *Channel Theory*. According to *Channel Theory*, TCM practitioners diagnose and treat according to the meridian affected, rather than from an Eight Principles and Zangfu diagnostic method, which many practitioners believe is more useful for herbal prescriptions. The *Balance Method* then builds upon *Channel Theory*.

To keep things simple, the base concept involves using a connected meridian that can help bring the sick meridian back to a state of balance. Sometimes using the Eight Principles and Zangfu diagnosis method as taught in modern TCM schools, would elicit worse symptoms. However, in the classical texts of acupuncture, the efficacy of the treatment is called “*Li Gan Jian Ying,*” which is translated as “stand a pole under the sun, and you should immediately see its shadow” (Tan, 2007). This means that one should see instant and positive results with Acupuncture, not slow or worse results (Tan, 2004 to 2015, 2007). This idea is based on six different systems of balancing a “sick” meridian with other meridians that are energetically connect to it.

In this retrospective case series, the Taiyin-Yangming was used due to its relationship with the “sick” Large Intestine Hand Yangming meridian, Stomach Foot Yangming meridian, and Liver Foot Jueyin meridian. The Large Intestine Hand Yangming meridian has an Exterior-
A retrospective case series analysis on a novel acupuncture and TCM diagnostic and treatment approach, and its efficacy results in treating AR. | S.F.Tan

Interior (Biao Li 表里) relationship with Lung Hand Taiyin meridian (Dr. Richard Tehfu Tan’s System III) (Tan, 2004 to 2015, 2007). The Stomach Foot Yangming meridian has an Exterior-Interior (Biao Li 表里) relationship with Spleen Foot Taiyin meridian (Dr. Richard Tehfu Tan’s System III) (Tan, 2004 to 2015, 2007). The Liver Foot Jueyin meridian has a relationship with Lung Hand Taiyin as they are adjacent to each other in the Chinese Meridian Clock (Dr. Richard Tehfu Tan’s System V) (Tan, 2004 to 2015, 2007). All meridians that are sick in the case of AR can be treated and healed using all the Taiyin meridians (Tan, 2004 to 2015, 2007).

So why add in the Yangming meridians? The reason is two-fold. The first is that the Liver Foot Jueyin meridian is also balanced by the Large Intestine Hand Yangming meridian via Dr. Richard Tehfu Tan’s System II (mutual attraction of opposite name and opposite limb - Bie Jing) (Tan, 2004 to 2015, 2007). The second reason was documented in Dr. Chao Chen’s book on an engineering concept called the “truss”. The “truss” involves certain geometric shapes that are known to be physically stronger than any other way of arranging material, usually in the shape of triangles (Wikipedia, 2015). By adding Yangming meridians that also balance the sick meridians, a “truss” is created. The meridians used are arranged in a Yin-Yang cycle, alternating and cycling either clockwise or counterclockwise. Dr. Richard Tehfu Tan, who has an engineering background, explained that the “truss” creates greater strength and circulation.

Putting this all together, one can see how the “truss” is created in Figure 9: the Large Intestine Hand Yangming meridian balances the (LU) Hand Taiyin and (ST) Foot Yangming meridians; the Stomach Foot Yangming meridian balances the (SP) Foot Taiyin and (LI) Hand Yangming meridians; the Lung Hand Taiyin meridian balance the (SP) Foot Taiyin. This cross-patterning creates the “truss” (see Figure 9).
Taiyin-Yangming III-VI arrangement with the “truss” and associated Guas

Furthermore, the points chosen were based on a “Meridian-Conversion” strategy where the Gua of the meridian is used to restore balance in the partnered meridian. In this case, Taiyin to restore balance in Yangming. It is not in the scope of this capstone to explain how this is “converted” to derive the acupuncture points. Those that are interested in learning the details of this should take courses in advanced Balance Method “Meridian-Conversion”. What will be noted is the resulting points—they are the Shu-Stream points and the He-Sea points of the respective meridians. No other acupuncture points on the meridians between the Jing-Well and He-Sea points that has a point classification can be used without possibly interfering with the restoration of balance due to the nature of “Meridian-Conversions.” In addition, note that no bilateral needling is used.

If one looks at the imaging system in Figures 8a, 8b, and 8c, one can see that these sets of points address the eyes and the area below the eyes that includes the nose (see Figures 8 and 9). If one wishes to look at the points from an Eight Principles and Zangfu approach, these points are strong tonifying points in these organ systems, and this implies that they would address the
immune system. One of the main indications of the Shu-Stream points is for disorders of the Zang (primary organs). The Shu-stream points of the Yin channels are the primary points for tonifying and harmonizing their respective Zang organs, and are also the Yuan-Original Qi points. They may therefore be considered as the single most important points of their respective channel (Deadman & Al-Khafaji, 2000). The He-Sea points are mainly indicated for diseases of the Stomach, and diseases of the skin (yang he-sea points only) (Deadman & Al-Khafaji, 2000). Since the Stomach supports the Spleen and extraction of Food Qi, and the skin is related to the Lung organ system in TCM, these points can also claim relevance from an Eight Principles and Zangfu perspective (Deadman & Al-Khafaji, 2000). In addition, one can look at the actions and indications of the selected meridian-conversion points from an Eight Principles and Zangfu perspective and can see the relevance of these points.

The beauty of the Balance Method is the ability to utilize a minimal number of points with maximal results. The Balance Method directly targets the “sick” meridian and augments the meridian in a highly efficient manner to create the state of balance and normal Qi and Blood flow. One could associate this with a light switch, where from a distal position, and provided one chooses the correct switches and wiring, one can turn on or off a switch to light the intended source.

Looking at both models and integrating further according to the actions and indications, UB 17 and SP 10 are added to treat Wind syndromes such as urticaria and stroke in TCM, for activating and nourishing the Blood. This idea is as mentioned is based on the principle that, “wind will be naturally eliminated if Blood circulates smoothly.” (Deadman & Al-Khafaji, 2000). This theory further supports the choice of Taiyin and Yangming. Taiyin meridians (Lung
and Spleen) support the generation of Ying-Nutritive Qi and Blood, and Yangming is abundant with Qi and Blood. In addition, the Lung Hand Taiyin meridian balances the Liver Foot Jueying meridian, and if one integrates this with Eight Principles/Zangfu knowledge, one knows that the Liver is responsible for the circulation of Qi upwards and outwards throughout the whole body. The Liver also stores Blood, further linking Wei-Defensive Qi and Blood. Therefore Taiyin and Yangming both support the promotion of and smooth circulation of Blood that makes it impossible for Wind to linger. The integration of both Blood building and *Balance Method* to form the *Tan Bu Xue Bu Zheng Approach*, doubles the impact of the treatment—not only strengthening Blood to support a stronger Wei-Defensive Qi (via the Eight Principles and Zangfu approach of acupuncture point and strengthening Taiyin), but also restoring balance by circulating Qi and Blood via Yangming and the Yin-Yang cycle of the “truss” within the meridian-conversion.

**Treatment With Chinese Herbs.**

The Chinese herbal formulas currently used are focused on the TCM pattern differentiation of the patient. For example, if a patient was diagnosed as having AR due to Lung and Wei-Defensive Qi deficiency, one of the standard formulas prescribed is Yu Ping Feng San or Jade Windscreen powder. This formula contains the Lung, Wei-Defensive Qi, and Spleen Qi tonic herbs Bai Zhu and Huang Qi, in addition to the Wind-expelling herb Fang Feng. In a clinical trial conducted by Chan et al. (2014), Yu Ping Feng San was modified by adding more “hot” herbs, in order to treat AR due to Qi and/or Yang Qi deficiency patterns with possible significance (Chan & Chien, 2014). All of these approaches still treat the patient’s presenting pattern. In comparison, the researcher’s formula is both presenting pattern-oriented and anticipatory in nature.
The herbal prescription (see Table 3) was the researcher’s own creation over time in clinical practice. The importance of this formula is three-fold. First, it not only strengthens Blood, but it invigorates it, which assists in circulating this needed Blood to all areas of Zheng-Upright Qi, Wei-Defensive Qi, Gu-Food Qi, and Yuan-Original Qi. Second, it strongly tonifies Wei-Defensive Qi and Zheng-Upright Qi. Third, it treats focused areas of the head and eyes, which are relevant to AR.

By adding herbs to support this Blood tonifying and invigorating approach, the researcher is changing the pathophysiology to supplement the nutritive source of Wei-Defensive and overall Zheng-Upright Qi, i.e. Ying-Nutritive Qi and Blood. As mentioned in Chapter Three, by strengthening the nutritional source of Wei-Defensive Qi (which is Blood and hence Ying-Nutritive Qi) one strengthens the Wei-Defensive Qi and Zheng-Upright Qi overall. Moreover, the researcher’s formula augments the Wei-Defensive and Zheng-Upright Qi at a quicker rate because it adds to the nutritional source of what Wei-Defensive and Zheng-Upright Qi need to be strong and thrive long-term. Hence, if one can strengthen not just Wei-Defensive Qi itself, but the foundation of its strength, namely Blood, one can have more efficacious results, as shown in this retrospective case series. As a metaphor, one could look at this as adding fertilizer to the garden instead of simply watering it, or by supporting the front-line troops. By doing this, the formula improves the function of Wei-Defensive Qi and Zheng-Upright Qi, and they are then able to be sustained at optimal levels for a longer period of time, if not infinitely.

From a pharmacological perspective, the formula has many anti-inflammatory, immunostimulant and hepatoprotective herbs (see Table 5). These effects are further supplemented by circulatory and strengthening herbs. In effect, the formula is a self-modulating, well-balanced formula for stimulating the immune system and reducing inflammatory processes,
in addition to protecting the Liver. Hepatoprotective herbs and foods are of considerable importance in health, due to the Liver’s important role in the regulation of many physiological processes. The Liver’s activity is related to different vital functions, such as metabolism, secretion, and storage (Madrigal-Santillan et al., 2014). Its capacity to detoxify endogenous (waste metabolites) and/or exogenous (toxic compounds) substances of organisms, as well as for synthesizing useful agents, has been analyzed since the 1970s (Madrigal-Santillan et al., 2014). The Liver is also involved in the biochemical processes of growth, nutrition, and energetic supplementation, all of which are important factors in having a strong immune system.

Furthermore, Sun, et al. (2008) found that Bai Shao Yao (Radix Paeoniae Lactiflorae) has a hepatoprotective effect and histological improvement on immunological Liver injury in mice (Sun, Wei, Gui, Wu, & Wang, 2008). Sun, et al. (2008), postulated that the hepatoprotective effect may be due to is antioxidant activity, its ability to reduce nitric oxide production and suppression of Kupffer cell activity and pro-inflammatory mediation and cytokines production (Sun et al., 2008). Further adding to the hepatoprotective and anti-inflammatory pharmacological approach, Huang Qi (Radix Astragalus Membranaceus) supplementation was found to significantly counteract the aberrant cytokine production when used to treat Chronic Fatigue Syndrome (Kuo, Tsai, Loke, Wu, & Chiou, 2009). Rats who received Huang Qi (Radix Astragalus Membranaceus) exhibited higher endurance capacity, which may be attributed to the herb’s ability to rebalance the abnormal cytokine level because it contains isoflavones (Kuo et al., 2009). By mediating inflammation and assisting those immune-related physiological processes, such as with the Liver’s ability to moderate inflammation, as well as improving the immune system’s response and processing, one can achieve a more optimally-functioning immune system rather than a hypersensitive one.
A retrospective case series analysis on a novel acupuncture and TCM diagnostic and treatment approach, and its efficacy results in treating AR. | S.F. Tan

**Tan Bu Xue Bu Zheng (Tang)-Tan Strong Blood Strong Immunity Decoction—Pharmacological perspective**

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A retrospective case series analysis on a novel acupuncture and TCM diagnostic and treatment approach, and its efficacy results in treating AR. | S.F.Tan

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**TABLE 5**

**Implications for Theory & Practice**

Allergic Rhinitis is more than just a nuisance. It affects a patient’s daily quality of life. For some, the symptoms of AR are severe enough to affect attention and concentration, sleep quality, economic burden, interpersonal relationships, and psychological well-being. Another significance is that AR is a risk factor for asthma and other co-morbidities (Min, 2010; WAO, 2011). Beyond the physical difficulties, AR patients face psychological effects, social impacts, and economic burden. As mentioned, in 2011, the World Allergy Organization determined that 20-30% of the world’s population suffered from some form of allergies (WAO, 2011).

Moreover, AR is a hyper-reactive inflammatory process in the body. There is evidence showing that alleviating and eliminating inflammatory processes may lead to improving aging, quality-of-life and longevity (Arai et al., 2015; Reale, 2014).
The results of this study show strong implications and improved efficacious outcomes for treating AR. Practitioners of TCM should consider the Tan Bu Xue Bu Zheng Approach—Tan Strong Blood Strong Immunity Approach and at minimum, add in Blood tonifying supports to further improve the turnaround time, and add in the Balance Method to further promote the efficiency of treatment. With further studies, the efficacy of the Balance Method could be considered a foundational course implemented and taught in TCM schools worldwide. In addition, this approach is not just treating AR, but the immune system as a whole, with application to both Acupuncture and Chinese Herbal medicine. This is an area that has not yet been explored in the literature to date. As a result, the findings of this retrospective case series are innovative and unprecedented in relation to the treatment of AR and treatment of an inflammatory process and the immune system.

**Limitations of the Current Study**

Due to the retrospective case structure, it was not possible to be absolutely certain that no further follow-ups meant that a patient had no further symptoms. While patients were asked to follow-up at a certain timeframe or if they had symptoms left, it was assumed that no follow-up equalled no symptoms, unless symptoms were recorded at the follow-up. Some patients reported no symptoms and came in for further tune-ups. Others did not follow up.

This was an observational study. The data was qualitative because it was based on patient symptom reports and the results were based on both subjective and objective data. However, the author wanted to study these qualitative aspects more quantitatively. Quantifying such qualitative data provides a framework for opportunities involving prospective studies such as with herbs alone, acupuncture alone, certain strategies of acupuncture alone, and more.
The sample size was small, with data extracted from 13 cases. The sample size could be considered limited, due to geographic factors. In this retrospective study, the samples came from one clinic and may not reflect the general population. The results would be considered stronger if this was a multi-clinic study. However, this likely is not a factor since the researcher’s clinic represents a wide range of ages, ethnicities, and presenting problems.

This study is not a clinical trial and therefore has no control group, placebo group, or treatment group for comparison. However, the use of clinical trials for acupuncture has been controversial since its inception due to its limitations with sham acupuncture and placebos, clinical realism, and methodology (Hammerschlag, 1998; He et al., 2013; Jackson, 2015; Kaptchuk, Chen, & Song, 2010; Moffet, 2009). Moreover, clinical trials originate first from observational studies.

It is noted that some of the patients in the retrospective cases had received the herbal prescription in addition to the acupuncture. This dual therapy would have an impact on the results and efficacy and presents a limitation of the study. However, this case series analysis was not a pure acupuncture analysis, but rather, examines the effects of a Blood approach in conjunction with a Balance Method approach in treating AR. In addition, the purpose was to quantify qualitative data.

The nature of seasonal AR is discontinuous, and therefore makes the evaluation of clinical results limited. The cessation of symptoms or lack of follow-ups may not necessarily constitute full remission. In addition, the discontinuation of symptoms could be due to the cessation of the season and allergens. However, the case series also analyzed recurrence of symptoms over time, and the results did show a reduction in both the number of weeks or treatments needed to abate symptoms and eventual full remission.
Recommendations for Future Research

Future prospective studies could provide the opportunity to study specific strategies alone such as herbs or other specific Balance Method approaches, and evaluate their effects in addition to quantifying the qualitative aspects of the case results. It would be interesting to study the Tan Bu Xue Bu Zheng – Tan Strong Blood Strong Immunity Approach and its application to other immune-based and hyper-reactive conditions such as autoimmune disorders and eczema. It would be intriguing to analyze the efficacy of the Balance Method in comparison to conventional acupuncture approaches in treating other internal medicine disease such as asthma, migraines, or frozen shoulder, as well as in comparison to current studies and/or to Western medical treatments. Other studies could include analyzing Chinese herbal medicine from a pharmacological perspective and its symbiosis. Other possibilities could be a single-blind or double-blind clinical trial.

Conclusion

The significance of the data shows a novel diagnostic and treatment approach—tonifying Blood achieves greater efficacy in treating AR, and the Balance Method shows even further longevity improvement or AR. Thus using the Tan Bu Xue Bu Zheng – Tan Strong Blood Strong Immunity Approach (both Blood method and Balance Method) to treat AR produces quicker efficacy of treatment and greater longevity of results. Even at a minimum, if a practitioner were to add in only the Blood method, he or she would have more efficacious results. This presents an innovative approach for practitioners to use to improve outcomes for their patients, and greater longevity for those outcomes. In turn, this creates more optimal health, and a greater quality-of-life for patients.
A retrospective case series analysis on a novel acupuncture and TCM diagnostic and treatment approach, and its efficacy results in treating AR.

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A retrospective case series analysis on a novel acupuncture and TCM diagnostic and treatment approach, and its efficacy results in treating AR.


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Appendices

Appendix A: Copy of IRB Approval letter

September 25, 2014

Sonia Tan
Vancouver, British Columbia, Canada

Dear Sonia,

Your research proposal has been approved, with no additional recommendations effective through March 31, 2016.

Should there be any significant changes that need to be made which would alter the research procedures that you have explained in your proposal, please consult with the IRB coordinator prior to making those changes.

Sincerely,

Penny Weinraub, L.Ac.
IRB Coordinator

13315 West Washington Blvd, Los Angeles, 90066
Appendix B: Data Extraction Tables

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<th>WM TESTS: Scratch</th>
<th>CURRENT SMOKER</th>
<th>Hx SMOKER</th>
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<th>SIGNS AND SYMPTOMS:</th>
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<th>clear phlegm</th>
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<tr>
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<th>red eyes</th>
<th>watery eyes</th>
<th>itchy throat</th>
<th>ASTHMA</th>
<th>CURRENT URTICARIA</th>
<th>Hx URTICARIA</th>
<th>ECZEMA</th>
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A retrospective case series analysis on a novel acupuncture and TCM diagnostic and treatment approach, and its efficacy results in treating AR. | S.F. Tan

DATA EXTRACTION SHEET
SONIA F. TAN - YSU DAOM C5

Hx ANAPHYLAXIS | TCM SIGN & SYMPTOMS: | pale face | low energy | LBP
1 | 1 | 1 | 1
0 | 1 | 0 | 0
0 | 1 | 0 | 1
0 | 1 | 1 | 0
0 | 1 | 0 | 0
0 | 1 | 0 | 0
0 | 0 | 0 | 0
0 | 1 | 0 | 1
0 | 0 | 0 | 0

TCM DIAGNOSIS

LU, SP & KL Defy w/ Wei Qi Defy & Ph Dyp
HT & LR Bld Defy w/ SI, SP, LI & Zheng Qi Defy
Wei & Zheng Qi Defy, LU & KD Defy w/ Yl Yin Defy
Wei & SP Qi Defy w/ SI Bld Defy and Blas Dry-Heat
PRIOR NOT W/ AR: LR Qi Stagn, w/ local Qi & Bld stagn, AR Tx: tonify LU Wei, Qi & Bld
PRIOR NOT TX FOR AR; FOR LBP
PRIOR NOT W/ AR: LR Qi Stagn, w/ SP Qi Defy; no re Dx with AR, but Tx tonify LU Wei, Qi & Bld; Wei Qi & Bld Defy Dx on tune up
PRIOR NOT FOR ACNE; FOR AR: LU Wei Qi Defy, SP & KL Defy, w/LR Qi Stagn & Bld Stasis (acne), & Bld Defy
Wei & Zheng Qi Defy, Dp-Ph in LU/mes, s. Yin & Blood Defy
WH: Wei Qi Defy w/ Qi & Bld Defy (SI), Qi & Bld stagn & SI, LU & KD Qi Defy
LI, SP, & KD Yang Qi defy with Phlegm, Yin defy, Qi & Bld stagn; Pt ORIG CC WAS ST ISSUES
KI, SP & LU Qi defy w/ LR Qi stagn and Blood defy producing Wd
W-H thr, LR Yin deficiency w/ SI, SP/ST Qi defy, Kidney Yin defy

TCM HERBAL Rx PRESCRIBED
(Tan Bu Xue Bu Zheng)

1
1
6
1
1
1
1
1
0
0

once only
once only

herbs only, no Ax

at recurrence

ACUPUNCTURE POINTS USED:
throughout the course of Tx in no particular order

LI 20, BL 2, YIN TANG, LI 4, LR 3, SP 6, ST 36, GB 20, BL 13, BL 18, BI TONG, BL 20, BL 23, BL 3, GB 40, SP 3, LU 9, DU 24, BL 6, BL 10, BL 40, BL 60, GB 21
GB 20, BL 13, BL 20, BL 18, BL 23, KI 3, BL 12, GB 40, LG 4, LR 3, SP 6, SP 3, TAI YANG, YIN TANG, ST 36, LI 20, BL 2, BL 17, LI 11, LI 3, LU 5, LU 9, SP 9, ST 43, DU 24, RTAN T-Y III-VI b
RTAN FROM BEGIN: T-Y III-VI, b: LI 11, LI 3, LU 5, SP 9, SP 3, ST 36, ST 43, LI 20, DU 23, DU 20, REN 4, REN 6, YIN TANG, REN 9, BL 13, BL 17, BL 18, BI 20, BI 23, GB 20
RTAN FROM BEGIN: T-Y III-VI, b: BL 62, SI 3, BL 33, BI 20, BL 17, BI 13, BL 12, BL 10, DU 20, LU 5, LU 9, LI 11, LI 3, SP 9, SP 3, ST 36, ST 43, HT 3, HT 7, SM 8, BL 65, BL 40, KI 1
RTAN FROM BEGIN: T-Y III-VI, b: LI 11, LI 5, LI 4, SI 5, SI 7, LI 8, BL 9, SP 9, SP 2, SP 1, ST 36, ST 44, LI 20, BL 2, REN 4, REN 6, DU 24; Ear Shenmen, YIN TANG, BL 9, LI 10, LI 12, XAN 1, BL 12, BL 13, ST 36, SI 5, LI 78, LI 41, LI 20, YIN TANG, BI 2, LI 108, LI 78, LI 46, SP 9L, LR 38, KI 7, BL 12, BL 13, BL 18, BI 20, BI 23, BL 60, LR 3, GB 20, DU 4
LI 4, TAIYANG, BL 2, GB 41, SI 5, SP 6, LR 3, YIN TANG, BL 13, BL 15, BL 18, BI 20, BI 23, BL 17, BL 12, GB 20, BL 60, DU 14, SI 23
A retrospective case series analysis on a novel acupuncture and TCM diagnostic and treatment approach, and its efficacy results in treating AR. | S.F.Tan

### DATA EXTRACTION SHEET

**SONIA F. TAN - YSU DAOM CS**

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### Coupled points

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### no symptoms 1ST RECURRENCE, IF ANY (wks)

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### FURTHER TUNE-UPS: WEEKS AFT LAST TX (WALT): Txs until no s/s

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Data Extraction Sheet
SONIA F. TAN - YSU DAOM CS

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<th>WALT</th>
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High stress & anxiety, poor sleep patterns

as needed anti-hist before began Ax Tx for AR
as needed anti-hist
results are from 1 course of herbs, Pt primary Tx was post-surgical, LBP; no acu done for allergies, only customized herbs used 2 preventative Tx done prior to season beginning; no f/u after Tats, only 1 Tx done for each recurrence, only 2 recurrences recorded had injection therapy prior to Ax as WMTx for 3 years; took anti-histamine as needed; herbs prescribed at recurrence pt skin disorder of vitiligo; WMTx with anti-hist no help; pt travelled a lot and could not ; come weekly, came every other week as best Was a secondary Tx after Tx for other CC’s so Dx based on begin CC; All worse after 1st preg’y; was preg; breast feeding during recurr txes Was a secondary Tx after Tx for other CC’s so Dx based on begin CC; electrodermal testing done for WMT June ’05; anti-hist as needed

herbal tea prescribed, not Fx
Table B1: Number of weeks until first recurrence: Comparing methods

| Number of weeks until first recurrence (new onset): Comparing Balance + Blood method & Blood method approaches at the start of course of treatment |

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</tr>
<tr>
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<td>0</td>
<td>9</td>
<td>4</td>
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<tr>
<td>5</td>
<td>9</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>6</td>
<td>116</td>
<td>143</td>
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</tbody>
</table>

Table B2: Comparison of treatment approaches: Onset phase

| Comparison of blood treatments efficiency - Onset phase |

<table>
<thead>
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<th>Weeks to no symptoms</th>
<th>BAL + BLOOD</th>
<th>BLOOD</th>
<th>OTHER STUDIES</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>5.8</td>
<td>3.9</td>
<td>8.5</td>
</tr>
</tbody>
</table>
Table B3: Recurrence of symptoms over time

Table B4: Comparison of Acupuncture approaches: Weeks to no further recurrence
A retrospective case series analysis on a novel acupuncture and TCM diagnostic and treatment approach, and its efficacy results in treating AR. | S.F.Tan