



Lonicera japonica Thunb.

Scrophularia ningpoensis Hemsl.

Angelica sinensis (Oliv.) Diels.

Glycyrrhiza uralensis Fisch.

# Why is Si Miao Yong An Tang So “Valiant” in Combating Chronic Non-Healing Ulcers and MORE?!

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## BACKGROUND

*Does efficacy lie in its biomechanisms for Activating & opening the body's living matrix networks for the flow of energy and information vital to the healing process of tissues? Or are there other molecular biomechanisms at play?*

Currently treating chronic non healing ulcers is an epidemic in which billions of dollars are invested to save limbs and maintain one's quality of life and ADL. To date there are adequate preventive measures for treating non healing ulcers but there's still a dire need for effective treatments once the condition becomes moderate or worse.

Si Miao Yong An Tang (SMYAT) is an ancient Chinese herbal medicine formula which has been traditionally used for the treatment of thromboangiitis obliterans, vasculopathy, heart diseases and gangrene for hundreds of years.<sup>8,16,17</sup>

This case study reports treatment outcomes from traditional Chinese herbal medicine formula. Discussion will be presented for current knowledge and investigations of the efficacy of SMYAT, in-regards-to molecular biological mechanisms, in addition to potential bioenergetic mechanisms that have been proposed.

## METHODS

This case study examines a 42 year-old male with a chief complaint of chronic non-healing ulcer accompanied by severe pain. Past History: Provoked Deep vein thrombosis (DVT) complicated by massive Pulmonary embolism (requiring sternotomy & embolectomy) in 2012 after tibia/fibula fracture followed by IVC filter placement (remains in place). In 07/2021 was admitted and found to have recurrent bilateral femoral DVT and symptoms of COVID PNA.

The patient incurred a small wound from bumping their leg against a pointed stationary object which punctured the skin in May of 2022. In September 2022 patient had another similar incident which aggravated and exacerbated the condition. Over the course of several weeks after neglect and lack of proper care the wound eventually began to form a cavity and decaying of tissue in some parts occurred.

At this later stage of disease patient began adhering to doctor's orders with prescription of antibiotics and blood thinners, but prognosis remained the same and even worsened after weeks of treatment. At this point, traditional Chinese medicine (TCM) was considered and proved effective.

Patient had medical evaluation and appointment before TCM consultation. 08.16.2022: Vitals: BP: 135/84, Temperature: 97.7 F, Pulse: 64, Respiration: 19, O2 Saturation: 99%

Lab Tests Completed: Basic Metabolic Panel, CBC/Diff  
Imaging Tests: Duplex Doppler Lower Extremity Venous Unilateral, Xray Tibia (2 views), unspecified vein  
Medications given: Cephalexin 500mg 1 pill 4x/day for 10 days, Sulfamethoxazole-Trimethoprim 1 pill every 12 hours for 10 days.

Allopathic medicine diagnosis: delayed wound healing and bilateral deep vein thrombosis.

Traditional Chinese medicine diagnosis: delayed wound healing due to fire toxin leading to blood stasis in sinews and blood vessels. The tongue body was musky and dark red with white sticky coating. The pulse was wiry and choppy.

### TCM Treatment:

Si Miao Yong An Tang Modified<sup>20</sup>  
Prescription dosage: 10 scoops (each scoop 2g) 2x/day  
15 scoops equals the traditionally prescribed amount

- 1)Jin Yin Hua 90g
- 2)Xuan Shen 90g
- 3)Dang Gui 90g
- 4)Gan Cao 30g
- 5)Dan Shen 60g
- 6)Ru Xiang 6g
- 7)Mo Yao 6g
- 8)Tao Ren 5g

## RESULTS



Figure 1. Picture October 10, 2022 Before administration of Chinese herbal medicines



Figure 2. Picture October 17, 2022 (After Debridement) No longer taking pain killers for pain. Swelling has significantly reduced especially around the ankle. Signs of wound closure.



Figure 3. Picture October 25, 2022



Figure 4. Picture 11.16.2022 Signs that there is regeneration of flesh.



Figure 5. Picture December 07, 2022 No complaints of leg pain, regained ADL, including for work performance and restoration of ROM and leg strength. Wound has closed and patient feels great.

## DISCUSSION

### Energetic Biomechanisms & Theories

- Perineural system
- Living matrix system
- Biological Rhythms
- Healing Effects of Extremely Low Frequencies (ELF)
- “The Blueprint”
- Vibrational Biophysics
- Energetic Pharmacology

### Evidence-based Indications & Actions

- Significant Antithrombotic & anti-inflammatory effect<sup>1</sup>
- Inhibiting platelet aggregation & activation<sup>2</sup>
- Ameliorate glucose metabolism, insulin sensitivity & hyperglucagonemia<sup>3</sup>
- Attenuates left ventricular dysfunction & myocardial remodeling<sup>3</sup>
- Inhibits myocardial apoptosis, inflammation & lipid accumulation<sup>3</sup>
- Associated with anti-oxidant activities<sup>4</sup>
- Reduced level of triglycerides & low-density lipoprotein cholesterol<sup>5</sup>
- Decreased content of many inflammatory cytokines in blood & plaque<sup>6</sup>
- Potential drug candidate for cardiac hypertrophy & myocardial fibrosis<sup>8</sup>
- Treating ischemic cardiovascular diseases & improve cardiac function<sup>11</sup>
- Reduce collagen deposition, cardiomyocyte apoptosis, reversed cardiac hypertrophy<sup>11</sup>
- Reduces area of aortic plaque & increases recruitment of pericytes<sup>13</sup>
- Promotes maturation of Vasa vasorum in plaque & inhibit angiogenesis in plaques<sup>13</sup>
- Therapeutic effects for myocardial ischemia/reperfusion injury<sup>16</sup>

### Molecular Biomechanisms & Theories

- 35 urine biomarkers—regulate 22 core biomarkers: i.e. normetanephrine<sup>1</sup>
- Tyrosine, vitamin B6, cysteine and methionine metabolisms<sup>1</sup>
- CD41/CD61/P-selectin downregulation<sup>2</sup>
- Regulates GLC/AMPK/NF-κB, GLC/PPARα/PGC-1α pathways<sup>3</sup>
- Pyruvate, taurine, hypotaurine metabolism pathways<sup>4</sup>
- Down-regulated expression levels of ANP & BNP mRNA<sup>11</sup>
- Up-regulated superoxide dismutase (SOD)1&2 mRNA expressions levels<sup>11</sup>
- Reduce NADP/NADPH ratio, inhibit myocardial stress—restore equilibrium of SOD NOX2<sup>11</sup>
- Regulate expression signal pathways: DI14/Notch1/Hey1/VEGF & stabilize vulnerable plaques<sup>13</sup>
- Main active components of: angorside C(AC) & 3,5-dicaffeoylquinic acid (3,5 DICQA)<sup>15</sup>
- AC & 3,5-DICQA inhibited ISO-induced autophagic cell death by inhibiting PDE5A/AKT/mTOR/ULK1 pathway and inhibited ISO-induced apoptosis by inhibiting the TLR4/NOX4/BAX pathway<sup>15</sup>
- Mechanism tied to inhibition of the differentiation and recruitment of monocytes and macrophages, the promotion of the differentiation and recruitment of Treg cells, as well as the reduction of the secretion of pro-inflammatory factors.<sup>16</sup>
- Inhibits oxidative stress by increasing SOD and reducing MDA, suppress inflammatory reaction by decreasing NLRP3 inflammasome-related cytokines' level, improve coagulation function by increasing prothrombin time (PT) and activating partial thromboplastin time (APTT), and ameliorate myocardial histopathological and ultrastructural changes<sup>16</sup>
- intestinal absorption of five anti-inflammatory active ingredients with different compatibility combinations was investigated, revealing that the absorption of active ingredients varied with the different compatibility combinations and different intestinal segments.<sup>19</sup>
- absorption of active ingredients could be obviously promoted by the compatibility of compound prescriptions, laying a foundation for the research on the compatibility rule<sup>19</sup>

Traditional Chinese herbal medicines are one of the richest pharmacopeia of medicines in the world. There exists textbooks and many records of its effectiveness for conditions such as chronic non-healing ulcers and more, however its exact biomechanisms and efficacy remain a mystery. Many doctors and scientists around the world are working towards building a “medical bilingualism” in order to extrapolate this inherent knowledge from TCM and synthesize it with current medical science.

Ji, Shuai, et al. purports that this goal can be met by a multidisciplinary approach that includes more than just pharmacology and botany, but also: analytical & pharmaceutical chemistries, physiology and biochemistry. New emerging investigative laboratory techniques and instruments include: proteomics, metabolomics, exploring specific markers and evaluating their targets and respective biological effects and lastly, evaluation of traditional uses of herbal medicines with respect to specific pathways.

Complex challenges for the study of herbal medicines are that they contain hundreds or even thousands of primary and secondary metabolites; meaning that to elicit specific components contributing to therapeutic effect is a monumental task.<sup>18</sup> Care needs to be taken with the standardization and reproduction of SMYAT as it drifts from its natural form as these modifications alter natural protective mechanisms for its safe use.

Dr. Candace Pert, Oschman and other experts in the emerging field of “energy medicine” discuss the need to explore other aspects of healing and biomechanisms through the studies of: the perineural, living matrix systems, biological rhythms, healing effects of extremely low frequencies, the blueprint, vibrational biophysics and energetic pharmacology.<sup>4</sup>

Of course, another important resource will be through the experience and wisdom possessed by master level practitioners of TCM.

Perhaps there is some light to shed on some of our current health care dilemmas and epidemics if “east will meet west.” Such as in the case of You Yu Tou and her discovery with the biomechanisms of the *Qinghao* and its utilization with a novel treatment for malaria.

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