

# Systematic Review and Meta-Analysis of the Curative Effect of Traditional Chinese Medicine on Psoriasis Under “Blood Syndrome Theory”

Zhu Zhu<sup>1\*</sup> and Wenxin Yang<sup>2</sup>

<sup>1</sup>Leshan City Wutongqiao Chuankang Hospital, China

<sup>2</sup>Chief physician of Traditional Chinese Medicine, Bachelor of Medicine, mainly engaged in the research direction of dermatology and venerology in the treatment of integrated Chinese and Western medicine, China

**\*Corresponding author:** Zhu Zhu, with a master’s degree in Traditional Chinese medicine, mainly engaged in the research of dermatology and venerology in the treatment of integrated Chinese and Western medicine, China

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## ABSTRACT

**Objective:** To systematically evaluate the safety and efficacy of traditional Chinese medicine in the treatment of psoriasis using the theory of blood syndrome.

**Methods:** Cochrane Library, Embase, Pubmed, Chinese Science and Technology Journal Full Text Database (VIP), Wanfang Database and China Journal Full Text Database (CNKI) were searched by computer from establishment to January 2022. Randomized controlled trials of psoriasis treated by traditional Chinese medicine under “blood syndrome theory” were included for systematic review based on inclusion and exclusion criteria; the literature quality of the included literatures was evaluated according to the Cochrane Reviewer’s Handbook 5.1.0 evaluation criteria and tools. The Cochrane Collaboration provided RevMan5.1 software, which was used as to perform meta-analysis on all of the selected data.

**Results:** The “Blood based treatment” of psoriasis offers certain advantages in terms of improving clinical efficacy, reducing adverse reactions, and reducing recurrence rate. However, due to methodological problems of included studies and possible publication bias, these limitations should be considered before drawing conclusions.

**Keywords:** “Blood Syndrome Theory”; Traditional Chinese Medicine; Systematic Review; Meta Analysis

## Introduction

Evidence-based medicine research is frequently utilized to find the best treatment plan. When clinicians or medical students conduct clinical research or medical experiments, the homogeneity problem can be taken into account in Meta-analysis and multiple combinations can be used to examine authenticity and reliability of experiments. Studies from the same qualitative source at the same time can propose effective programs based on the results, and the data is more convincing. Psoriasis is a common autoimmune disease in which the basic skin damage is erythema with multiple layers of silvery-white scales. Psoriasis affects less than 100 million individuals worldwide. Beata, et al. [1] found that patients generally have moderate accep-

tance of the disease, with low life satisfaction and moderately deteriorating quality of life. Among them, the duration of the disease significantly affects patients’ life satisfaction, stigma and quality of life. Studies have found that it typically takes 8-10 years from topical treatment to mild and higher intensity treatment, namely systemic treatment [2]. The prevalence of psoriasis is rising every year in China as a result of the country’s accelerating urbanization, environmental pollution, heightened social rivalry, and other causes. Western medical treatments have relatively serious side effects and little safety. According to studies, traditional Chinese medicine has a long history in the treatment of psoriasis, and in recent years, it has been successful in curing 77% of cases [3].

The current state of traditional Chinese medicine supports the use of “blood based treatment” as one of the most significant therapeutic modalities for psoriasis. The ineffectiveness of traditional Chinese medicine has been confirmed by several research, nevertheless, and the disease will worsen if traditional Chinese medicine is used erratically [4]. Of course, every doctor has their own perspective on this disease, but the generally recognized belief is that it has something to do with blood. Some Chinese medicines have the effect of promoting blood circulation and removing blood stasis, which can produce obvious results in the treatment of psoriasis [5]. It is also mentioned in related books that angelica sinensis, Radix rehmannia and safflower can inhibit epidermal cell proliferation when they reach high concentrations [6]. Relevant studies have proved that traditional Chinese medicine can regulate the blood of psoriasis patients and help in treatment [7]. In addition, Marwa, et al. [8] also found that the level of plasma gelin in patients with psoriatic arthritis was lower than the normal level, suggesting that plasma gelin was closely related to psoriasis. Human monocytes are encouraged to differentiate into highly pro-inflammatory macrophages that resemble psoriasis-related phenotypes by IFN- $\gamma$ . [9] Von Willebrand factor (vWF) is a marker of angiogenesis, hypercoagulability, and inflammation, and serum vWF can be a better marker of psoriasis severity than PASI [10]. Hillary, et al. [11]. found that patients with psoriasis had a higher incidence of venous thrombosis.

There are many arguments for implementing the “blood based treatment”. Psoriasis is also called “white mange” and “psoriasis”, and the blood treatment is divided into three types: blood heat, blood dryness and blood stasis. The most frequent type of blood heat requires treatment primarily for blood cooling, nourishing blood and promoting blood circulation. Mupan bark, locust flower, raw rehmannia, and other medications for lowering blood pressure and enhancing blood circulation are used in the “treating from blood” theory [12]. Although traditional Chinese medicine is widely used in the treatment of psoriasis. There are many clinical trials, but the original reports rarely describe the trial design in detail. Based on this, many studies have a tendency to evaluate the effectiveness while ignoring the observation of adverse reactions. Therefore, this study starts from the “blood based treatment”, summarizes and analyzes some cases of current Chinese medicine treatment, and determines the objective, safe and effective view of “blood based treatment” in order to serve as a guide for the clinical treatment of this disease and assist in the selection of the best program.

## Materials and Methods

### Data Source

Start with “#1 MeSH descriptor: Psoriasis explode all trees #2 MeSH descriptor: Medicine, chinese Traditional #1 AND #2 “for Cochrane search. Search with “1 nail psoriasis/ or experimental psoriasis/ or “Psoriasis Area and Severity Index”/ or pustular psoriasis/ or psoriasis vulgaris/ or Psoriasis Severity Index/ or psoriasis/ or

guttate psoriasis/ or erythrodermic psoriasis/ or scalp psoriasis/ (78808) 2 Chinese medicine/ (44749) 3 randomized controlled trial/ (683261) 4 1 and 2 and 3 (30) “Search embase for retrieval Search Pubmed for “((psoriasis) AND (Chinese medicine)) AND (randomized controlled trial)” Take “title or keyword = psoriasis+ psoriasis+psoriatic+ pinoderma + Psoriasis + nuchal sore + Psoriasis vulgaris + Neurodermatitis + chronic simple lichen + Psoriasis vulgaris + Psoriasis vulgaris + chronic simple lichen AND title or keyword = chinese medicine +chinese traditional medicine+traditional chinese medicine and pharmacy+ Chinese medicine+ Traditional Chinese Medicine + Traditional Chinese medicine+ Traditional Chinese medicine+ Traditional Chinese medicine AND title or keyword = RCT+ randomized control + randomized + control “is a searchable search for Chinese Science and technology journal full-text database (VIP). Take “title OR key words :(psoriasis OR psoriasis OR white mange) and title OR key words :(Chinese medicine OR Chinese medicine OR Chinese medicine OR Western medicine) and title or key words :(randomized control) not all :(systematic review or meta-analysis or quality evaluation) not All :(rat OR rabbit OR dog) “was searched for Wanfang database.

Take “(subject: Psoriasis (accurate)) OR (subject: Psoriasis (accurate)) OR (subject: white mange (accurate)) AND (subject: Chinese Medicine (accurate)) AND (subject: Randomized control (accurate)) NOT (subject: Systematic review (accurate)) NOT (subject: Meta-analysis (accurate)) NOT (subject: Meta-analysis (accurate)) NOT (subject: Mouse (accurate)) “was used to search the China Journal Full-Text Database (CNKI). Each database was searched from the earliest time of inclusion in the database to January 2022.

## Inclusion and Exclusion Criteria

### Inclusion Criteria

- 1) Subjects: Patients with primary and recurrent psoriasis, whose diagnosis was confirmed by examination and met the criteria of Chinese Clinical Dermatology (Jiangsu Phoenix Science and Technology Publishing House 2017) and Clinical Diagnosis and Treatment Guide-Dermatology and Venereal Diseases (People’s Medical Publishing House, 2006).
  - 2) Intervention Measures: Carbertriol and other non-traditional Chinese medicines were used to treat the control group. In the experimentSal group, the drugs in blood classification of TCM decoction should be greater than or equal to five flavors or greater than or equal to half of the total number of drugs. For the classification and judgment of the efficacy of TCM, refer to the fifth edition of the New century in Chinese Pharmacy (China Traditional Chinese Medicine Press 2021).
  - 3) Outcome Indicators: Effective rate, PASI score, adverse reactions, etc.
1. Type of Study: Randomized controlled trial, regardless of country, region, time, and other restrictions, whether blind or not.

4) All literatures reported complete data, including the number of observers, male to female ratio, drug composition, drug duration, observation index and other indicators.

### Exclusion Criteria

- 1) Irrelevant literature and duplicate literature.
- 2) Literature on other psoriasis medications or treatment regimens, such as UV exposure.
- 3) Basic research such as animal experiments, in vitro cell tests, etc.

Literature quality evaluation and information extraction The quality of the included literature was assessed according to the Cochrane Reviewer's Handbook 5.1.0 evaluation criteria and tools. When it was necessary to extract critical information, the two researchers worked separately to do so independently, and they then collaborated when they disagreed. Information extracted included the researcher's name, publication date, level of literature, and other factors.

### Data Collation and Analysis

All the selected data were collated using Excel2016, and Me-

ta-analysis was performed using RevMan5.1 software provided by the Cochrane Collaboration. Some of the data were counted using efficacy analysis statistics. Each effect size was estimated at 95%CI, and the data were measured by mean difference and 95%CI. The X2 test was performed to determine whether the results were heterogeneous. Each study needs to be statistically rigorous ( $P > 0.1$ , 12 50%), clinically homogeneous, and use a fixed effects model before merging and evaluating the data. On the contrary, the source of heterogeneity is studied, and all factors that may cause the problem are taken into account and analyzed. The random effects model is utilized directly if the data are homogeneous. Descriptive analysis will be used if the clinic's heterogeneity is too great or visible.

### Results

A total of 4150 subjects were included in 43 studies, with 2336 cases in the experimental group and 1814 cases in the control group. There were 238 cases in the largest sample and 21 cases in the smallest sample. 30 studies were compared with Western medicine, and 13 studies added traditional Chinese medicine prescriptions on the basis of Western medicine, as shown in Table 1.

**Table 1:** Basic Information.

Inclusion of Literature	Sample Size	Age (average)	Sex(m/f)	Name of drug	Drug composition	Comparator	Medication regimen	Observation index
Yungui jing 2018	40/40	I:35.24±2.14 C:35.19±2.45	T:26/14 C:26/15	Nourishing Blood and Eliminating Pimple Soup Compound Glycyrrhizin, Avitamin A Capsules	Chicken Blood Vine, Hu Ma ren 30g each, Angelica Sinensis, Radix paeoniae Alba, Radix et Rhizoma dioscoreae, rhizoma Ligustici Chuanxiong, Poria Cocos, Tribulus Terrestris, CortexPseudostellariae, Fenghuang, glycyrrhiza glabra	Glycyrrhizing Complex, Avitamin A Capsules	8 weeks	Time to Resolution of lesions, time to resolution of Itching Past score, body Temperature, total lesion area, anxiety
Qiu Shi 2005	32/32	T: 30.42±8.57 C:33.34±8.21	T: 18/14 C:174/15	Activating Blood and Dispersing Blood Stasis And eliminating Silver Soup	Sanguisorba, Atractylodes, Macrocephala, Peach Kernel, Saffron, Cinchona berry, Ghost arrow feather =, white-flowering Snake Tongue Herb, Salvia officinalis, Pericarpium ternatum, Snake Tongue, Salvia miltiorrhiza, pericarpium Citri Reticulatae.	Avitamin A tablets	8 weeks	PASI scores, blood rheology tests, and conventional physiologic markers.

Huang Jianqiang 2015	60/60	T: 35.20±12.21 C:34.90±11.98	T:29/31 C:28/32	1 Developmental stage Sophora japonica drink 2 Stationary stage- tao Hong Si Wu Tang 3 Decline stage Angelica sinensis drink	1 Development stage-Tu Sophora Drink: Tu Fu Ling, Cicada Molt, angelica, red peony, Tribulus terrestris, white fresh skin, silver folwer, licorice. 2 Stationary Phase I- Tao Hong Si Wu Tang: peach Kernel, safflower, atractlodes macrocephala, poria, poria, I jutsu, Saponaria, Lupinus, Angelica sinensis, Rhizoma Ligustici chuanxiong, Quanchung Snial. Motherwort, Forsythia, (3) Receding period- DangGui Drink: Dang Gui, Fenghuang, Rhizoma Ligustici Chunxiong, jing Mustard, Paeonia lactiflora, Tribulus terrestris, polygonum multiflorum, Radix Rehmanniae, Radix et Rhizoma Glycyrrhizae.	Avitamin A Capsules	8 weeks	Criteria for Diagnosis and Efficacy of Chines Medicine Diseases, PASI Score
Li Jin more 1996	317/90	13-64	254/162	Anti-silver pill	Dandelion, white seaweed, comfrey, red peony, honeycomb, row earth, ginseng, green dai, whole snail, snake, cicada slough, windbreak, large centipedes.	biketazin	4 weeks	4-week efficiency, recurrence rate
Tan Change 2020	33/32	T:37.73 ±11.711 c:39.34 ±15.485	I:21/12 C:22/10	Add floavor to cool blood and eliminate wind	Buffalo horn powder, Radix et Rhizoma Dioscoreae, Peony, Pi, Lien Coarse, Stiffener, Dibasilaria, Zingiber Officinalis, Morus alba, Radix et rhizome Glycyrrhiza, radix et Rhizoma Glycyrrhiza, Radix et Rhizoma Glocyrrhiza, radix et Rhizoma Ginseng, Rhizoma Chasteberry and Radix et Rhizoma Ginseng.	Avitamin A Capsules	8 weeks	PASi score, clinical efficacy determination, itching score, detyermatologic quality of life score
Liu jing 2012	54/57	T:38.96 ±10.68 C:41.12 ±10.17	T:45/9 C:42/15	Psoriasis 1 formula	Poria cocos, radix Bupleurum Chinense, Radix et Rhizoma Cyanocarpae, Snake tongue, sempervirens, peak fungus, Sichunan Peony, Zedoary, Plantago Ovata, Dictyostellium, Pseudostellariae, radix et Rhizoma, Dandelion, Rhizoma Rheum, Glyrrhiza Glabra, Dee Sliver Tables, basic Treatment	Di-Silver Tablets, basic Treatment	4 weeks	PASI score, Chinese medicine efficacy, quality of life, safety assessment
Liu Hongxia 2009	17/16	T:38.8±4.61 C:37.5±5.3	T: 10/7 C: 9/7	Clearing away heat and activating blood circulation, Pou Lien poultice bath.	Radix Rehmanniae Praearata, Radix Rehmanniae Praearata Radix, et Rhizoma Cymbopogonis, Radix et Rhizoma Cymbopogonis, Poria cocos, Radix et Rhizoma Zizoma Ginseng, Salvia miltiorrhiza, Mudanpi, Radix Angelicae Sinensis, Radix Paeoniae Alba, Radix Paeoniae Alba Radix Anelicae Sinensis	Avitamin A capsules, Pouien poultice baths.	4 weeks	PAS I score

Zhou Lidong 2010	100/10	T:27±5.1 C:25±3.7	T:43/57 C:4	Internal herbal medicines (I) developmental stage - Tuhuai Drink (2) stationary stage- Jiawei Siwu Tang (3) waning stage -Paeonia Lactiflora and Zaijutsu Tang (4). External Chinese herbal medicine : wet compresses, packs, or medicated baths.	Internal herbal medicines (I) Developmental stage : Poria cocos, Sohora japonica, Glycyrrhiza glabra. (2) Static phase : Radix Rehmanniae Praeparata, Paeonia Lactiflora, Radix Angelicae Sinensis Rhizoma Ligustici Chuanxiong, Rhizoma Atractylodis Macrocephalae, Rhizoma Dampiflora Radix et Rhizoma Glycyrrhizae, Radix et Rhizoma Chai Hu. (iii) Receding stage : Zaijiao, Sanl eng, Yanhuisuo, Radix Paeoniae Alba, Radix Angelicae Sinensls.	Compound glycyrrhizin	4 weeks	Refer to the efficacy criteria for psoriasis in the “Diagnostic and Therapeutic Criteria for TCM Dermatology Diseases” to determine the efficacy of the disease.
Lee Koo San 2011	50 /50	T:27±3.9 C:28±4.2	T:27/23 C: 28/22	1. Blood-heat syndrome : Tu-Wui-T 2. Blood-dryness syndrome : Jia-Wei Si Wu Tang 3. Blood stasis syndrome : Red Paeonia lactiflora and Rhizoma Atractylodis Macrocephalae plus Compound Licorice Acid Glycoside Injection, Topical Tacalcitol Ointment Herbal Baths	1. Blood—heat syndrome : Tu Suo Tang : Tu Fu Ling, Sophora japonica, Glycyrrhiza glabra. 2. Blood-dryness syndrome : Jia Wei Si Wu Tang : Chuan Xiong Ligustici, Angelica Sinensis 15g, Paeoniae alba, Pseudostellariae Alba, Radix Rehmanniae Praeparata Radix Scutellariae Scutellariae, Fructus Pseudostellariae Chinese yam, Atractlodes macrocephala Atractlodes macrocephala jujube, 3. Boold stasis : Red peony and myriad arts soup with the addition and subtraction of : Sanguisorba Atractylodes macrocephala, Ligusticum chuanxiong Aroma lanceolata Paeonia lactiflora Andrographis aniculata , Peach kernel, Gui Zhi Poria cocos Radix Paeoniae Alba, Hyssop, Rhizoma Scrophulariae, Leeches, Fructus Araceae	Compound glycyrrhizin	3 weeks	According to the efficacy criteria for acute psoriasis the Diagnostic Efficacy Criteria for Chinese Medicine Diagnosis Medical Cases
Luo Zhiguang 2015	60/60	30.0±8.6	70/50	Anti-silver and detoxification soup, with sulfur ointment	buffalo horn tablet, Panax quinquefolium, Meng Xiu, Bai Xian Pi and Poria cocos, Honeysuckle, PY, Radix et Rhizoma Sheng Di, Radix Paeoniae Alba, Radix et Rhizoma Ginseng.	Avitamin A Capsules	4 weeks	Efficacy determination, psoriasis serum IFN— I TNF—Ot and IL → levels

Zhou Bo 2015	24/24	T:32.0±8.5 C:34.0±7.8	T:10/14 C:12/12	Anti—Scar Drink, Chloramphenicol Dexamethasone Cream	raw white peony, angelica, raw chigou, Asparagus, Ophiopogon, Chasteberry, Morus officinalis, Morus officinalis Semen euryale, Semen nigrum, Atractylodes macrocephala Coixlacryma, Cortex alba Radix et Rhizoma Polygonati Odorati, Radix et Rhizoma Polygonati Odorati Radix et Rhizoma Polygonati, Radix et Rhizoma Polygonati Odorati, Rhizoma Polygonati Vulgaris .	Avitamin A Capsules Oxytetracycline dexmenthasone cream	8 weeks	Determination of efficacy
Zuo Yuhui 2012	64/62	36.0±13.5	71/55	Five Roots Soup for Cooling Blood	Blood-heat evidence prescription: Radix Bupleurum officinale, Radix Bupleurum officinale, Radix et Rhizoma Cyperi, Radix et Rhizoma shengdi, Radix paeoniae Alba, Radix Angelicae sinensis, Radix et Rhizoma Ziziphi, Radix et Rhizoma Uphiopogonis, Rhizoma Uphiopogonis, Radix glycyrrhiza glabra, blood stasis evidence minus the Radix Bupleurum officinale, add Salviae miltiorrhiza, Radix Salviae miltiorrhiza: Blood dryness evidence add Radix et Rhizoma polygonatum	Avitamin A capsules	6 weeks	Effective rate in 5 weeks, according to the efficacy standard for psoriasis in the Diagnostic Efficacy Standard for Dermatologic Diseases in Traditional Chinese Medicine.
Zhang Zhenhan 2012	56/56	35.8±3.9	60/52	Quingying Tang, Avitamin A Capsules	Buffalo horn, Radix Rehmanniae Praeparata, Radix et Rhizoma Ginseng, Radix Bamboo Leaf Heart, Ophiopogon, Salviae Miltiorrhizae, Rhizoma Polygonati Odorati, Honeysuckle, Forsythiae.	Avitamin A capsules	1 month	Effective rate in 1 month, with reference to the Diagnostic and Therapeutic Efficacy Criteria for Chinese Medicine Certification
Huang Yongshou 2012	35/35	41	48/22	Chinese herbal soup, compounded Glycyrrhiza glabra capsule, Vitamin A softgels	Radix Rehmanniae Praeparata, Radix Bupleurum, Radix Sophorae, Radix et Rhizoma Glycyrrhizae, Radix et Rhizoma Glycyrrhizae, Radix Rehmanniae Praeparata and Radix forsythiae	Compound glycyrrhizin	8 weeks	2-month effectiveness rate
Zhao Jinhui 2003	30/30	19-63	T:19/11 C:16/14	anti-silver soup	Sambucus root, Sempervirens, Red vine, Chonglou, Cornu Cervi Pantotrichum, Radix Rehmanniae Praeparata, Mudan Pi, Sophora Japonica, Gentiana Macrophyllae, Poria cocos, Poria Cervi pantotrichum, Escargot, Centipedes, Pseudostigmata, Ghost arrow feather, Red peony	Dipyridamol	8 weeks	PASI score, 2-month effective rate

Yuan Jufen 2011	38/38	T:18-76 C:16-60	t:22/16 c:16/18	Five Roots Soup for Cooling Blood	comfrey, dandelion, Radix et Rhizoma Dioscoreae, Radix et Rhizoma Cymbopogonis, Herba Cuspidatae, Paeoniae, Lactiflorae, Daphne, and Snake Wushu, Angelica sinensis, licorice: for blood dryness, add bamboo: for blood stasis, on the basis of this formula, reduce leucocephala root and addanshen.	Avitamin A capsules	4 Weeks	PASI score
Chang Yushan 2011	30/23	T:18-67 C:16-60	T:20/10 C:15/8	Chinese medicine soup, Di Yin tablets	Comfrey Root, Demerara, Radix Paeoniae Alba, Dandelion, Ginkgo Biloba, Buffalo Horn, danpi, niu Laozi, ban yi root, yuan ginseng	Dipyridamole	1 month	1-month effectiveness rate
Wang Haiyan 2010	22/20	37.6±15.1	Aug-34	Topical skin lotion, methotrexate, salicylic acid cream	Radix Paanax Quinquefolii, Folium Artemisiae, Semen Aristolochiae, Radix Paeoniae, Fetidis Macrocephalae, Salviae Miltiorrhizae, folium Cyperus, Fructus Schisandrae chinensis, Fructus Momordicaulis	Methotrexate, lactacycline salicylate	6 weeks	6-week efficiency, PASI score
Cheng Jiu 2012	35/30	T:3-18 C:4-17	T:13/22 C:10/20		Buffalo horn, Poria cocos, Radix et Rhizoma Glycineae, Radix Scutellariae, Rhizoma Polygonati Odorati, Rhizoma dendrobium, Radix et Rhizoma Dioscoreae, Radix et Rhizoma Cymbopogonis, Radix et Rhizoma Platycodonis	Penicillin(antibiotic)	4 weeks	1-month effectiveness rate
Liu Jian 2011	85/45	T:11-70 C:15-56	T: 40/45 C: 35/10	Cleansing Silver Detergent	Radix Rehmanniae Praeparata, Honey-suckle, Poria, Thornybush, Fenghuang, Ume, safflower, Paeonia lactiflora, Sangleng, Mejiao, Tribulus terrestris, Radix et Rhizoma Lappa, Lianshi.	Salicylate Soft tone	20 days	efficient
Dai Xioli 2009 Sun shu 2004	40/34 84/38	52 T:18-67 C:22-68	40/37 T:54/30 C:23/15	Bath No .1 Proposed Bath No. 2	Scutellaria baicalensis, Radix et Rhizoma Ginseng, Mentha piperita, Radix Scrophulariae praeparata, Radix et Rhizoma Psoralea, Radix et Rhizoma Polygoni Multiflora, Radix et Rhizome Lianzhi  One, raw rhubarb,cypress, bitter ginseng tiger nut, snakebite, dandelion, Angelica dahurica,chrysanthemum, shilupu,Saffron, Mentha piperita, Mangosteen Withered alum; Second the large raw ground,the Whole Angelica ,chicken blood vine, prickly five plus skin, the skin of the bones, seven leaves of the of one branch, Hsu Chagqing, Sedgewick quinoa, hang baichu, Weiling Xian , Broussonetia Kasumiga leaves, Sapindales, salvia miltiorrhiza, Peppercorns	Compound glycyrrhizic acid, topical allantoin emulsion  Anthralin soft drug	4 weeks 8 weeks	1-month effectiveness rate 2-months efficiency, PASI Score
Jewel Xu 2010	44/16	t:47.36 12.02 c:49.27± 13.88	T:28/16 C: 10/6	Silver Chip Joint Soup Compound	Poria cocos, grass ROSS, rav earth geode, acacia, white fresh peel, tribulus terrestris angelica, windbreak, red peony white poony, danshen. Ionicora japonica, sarifrage, maitake, danshi, xuanshen, licerice and nany others.	Leflunomide methotrexat c	12 weeks	Laboratory score, 12 :week effective rate

Zhao Xingniac 2010	30/26	37	T:38/18		Fructus Tuberculosis Radix Rehmanniae Praeparata, Fructus Pseudostellariae Fructus Ophiopogonis, Fructus Beehive, Fructus Cynanchun. Exuctus Bone Skin, Fructus Turbinatus, Radix Salviae Miltiorrhizae, Radix et Rhizoma Saffron, Radix Angelicae Sinensis, Radix et Rhizoma Ginseng, Senen Aristolochiae	Avitamin A capsules, Dazamethasone Urea Cream.	4 weeks	4-week efficiency
He Xiangying 2010	60/40	t:27.9#3.9 c: 28.6±4.2	T:27/33 C:22/28	Cooling blood and clearing silver soup. compound zycyrrhizin, tacalcitol soft education	Tu Sophora Soup, : Jia Vei Si Wu Tang, Red Peony I Shu Tang plus reduction Herbal external washing: rav lateral cypress leaves Turbinaria, white fresh skin, large saponaria Diagnosis and addition and subtraction: blood-beat type plus anaranthus, septoria, dandelion; blood dryness type plus bitter ginseng, dicotyledonous blood stasis type plus nudanpi, raw augvort leaf.	Xiafang glycyrrhizin	6 weeks	6-week efficiency rate
Yang Manchur 2009	30/30	T: 45 C:43	T:18/12 C:16/14	clear Yin and detoxify poisonous soup	Poria cocos, Cynanchun, Honeysuckle, Salvia miltiorrhiza, Panar notoginsong, Cornu Corvi Pantotrichun, Dijin Cap, Shengshiyu, Scutellaria baicalensis, Radix et Rhizoma Dioscoreae, Radix et Rhizoma Dioscorene, Semen Asseuli, Semen Bianchi, Curcuna longa Fructus Psoralea.	Dipvridanole	8 weeks	8-week efficiency rate
Li Venxue 2010	45/45	T:18:57 C:17-56	T:24/21 C:20/19	Chevron Southvest Soup	Shouwu, forsythia, confrey, dandelion, White fresh skin, raw earth, big green leaf, gold silver flower, salvia, gardenia, angelica, Licorice	Avitamin A Capsules	8 weeks	5-week efficiency
Ming Tsai 2011	84/50	T:40 C:31.4	T:60/22 C:30/20	Botulinum torin capsule, Shuanghuan-glian powder injection combined with Compound Danshen injection, Traditional Chinese Medicine Steaming	Cooked ground, Volfberry, Bupleurun Danpi, rav ground, ligusticum Chuanxiong, aloe, Paeony purslane, scutellaria scutellaria, Radix skin, Danpi, honeysuckle, raw ground	polypeptide	4 weeks	PASI score, 4-week effective rate
Li Zhifan 2017	66/66	t:39.0±5.3 c: 38.4±4.9	T:40/26 C:37/29	Clearing Heat, Cooling Blood and Renoving Toxins Soup	Radix Rehmanniae Praeparata, Radix Bupleurun Chinense, Poria cocos, Radix Sophora japonica, Fructus Cigivalis Radix Ziryphus, Radix Paeoniae Alba, Fructus Bupleurun Rhizoma Polygonati Odorati.	Vitamin E Capsules	6 weeks	PASI score, 6-week effective rate

SungC-hun Lee 2011	68/50	36.4	61/57		Blood-heat type: Scutellaria baicalensis, Radix et rhizoma Shengdi, Radix et Rhizoma Dandelionis, Radix et Rhizoma Dioscoreae, Salviae Miltiorrhizae, Salviae Miltiorrhizae Oyster, Oyster, Radix et Rhizoma Shengdi, Paeoniae Lactiflorae Rhizoma Dioscoreae, Radix et Rhizoma Dioscoreae, Rhizoma Dioscoreae, Rhizoma Dioscoreae, Rhizoma Dioscoreae, Sanleng, Ijiao, safflower, anemia Add motherwort, angelica. 3 Blood stasia type: Salvia miltiorrhiza, angelica, chuanxiong 30g each, mother-of-pearl, stone, chaihu, peach kernel, safflower, umeboshi, dandelion, red peony, hys-sop, ripened earth, yujin.	Dee Silver tablets, Avi A. Some loyalists Depending on the condition, topical beta-carotene may be used.	8 weeks	PASI score, 8-week effective rate
Kwok Man Lai 2011	32/30	47±12	45/17		Radix Salviae Miltiorrhizae, Radix Rehmanniae Praeparata, Rhizoma Ophiopogonis, Rhizoma Polygonati Odorati, Rhizoma Polygonati Odorati, Rhizoma Cinnamomum Cassiae.	Avitamin A Capsules	12 weeks	PASI score, lesion area score 4, 8, 12 Effective-ness rate
Yang Hu 2017	62/62	T:3B.2±10.3 C:38.5±10.1	T:32/30 C:33/29	Cooling Blood a Removing Blood Stasis with Vegetable Wind Soup	Comfrey, Radix Rehmanniae Praeparata, Polygonum multiflorum, Poria cocos, Radix Angelicae, Sinensis, Radix, Paeoniae Alba, Radix, et, Rhizoma Ginseng, Radix Ophiopogonis paniculatae, Angelica dahurica, Herba Ephrasuae, Fenghuang.	Calcipotriol betamethasone Ointment	4 weeks	PASI score
Ma Xuewei 2011	40 / 40	T:35. 3 C:37.8	T :22 118 c :23/11	Gramophone I	Radix et Rhizoma Zizoma, Radix Paeoniae Alba, Radix Rehmanniae Praeparata, Rhizoma Saffron, Radix Angelicae Sinensis, Radix et Rhizoma Chuanchuan, buffalo horn powder, centipedes, Scutellaria baicalensis, forsythia.		12weeks	PASI score, 8--week effective rate
Xie Shaoqiu 2009	41/30	T:42.5 C:37.5	T :21/20 c :16/14	Anti-silver 1	Radix Rehmanniae praeparata, Radix et Rhizoma Alba, Poria cocos, Radix et Rhizoma Alba, Salviae Miltiorrhizae, Radix ET Rhizoma Sophorae, Radix et Rhizoma Glycyrrhizae, Radix et Rhizon Moutain, RADIX Paeoniae Alba, Radix et Rhizoma Zizoma Glycyrrhizae, Rhizoma polygala, Radix et Rhizoma Glycyrrhizaeh		8 weeks	PASI score, 8---week effective rate
Lang Yanjing 2012	38/31	22-51	49/26		(1) Blood-heat type: Poria cocos, white fresh skin, Ionicera japonica, Cao He Che, Radix et rhizona, Dampyradium, Paeonia lactiflora, Da Qing Ye, Bei Dou Gen, Sophora japonica, Zi Cao.		8 weeks	PASI score and efficacy evaluation
Zhang Lianai 2011	50/46	T:38. 9 C :37. 5	T:27/23 c :24/22	chamomile			8 weeks	4-week, 8-week efficiency
He Yongxiang 2008	108/66	T:35 C:34	T:56/ 52 c :35/31	Ointment			4weeks,8 weeks	4--week, 8--week efficiency, PASI score
Li Guan-hong 2017	55/ 52	T: 32.5± 8.23 C: 33.5± 7.89	T: 36/19 C: 33/18	Kexin Tang, Compound Flumethasone Ointment			4 weeks	DLQ, I score, PASI scores and validity rates

Yan Zhangren 2011	30/30	T:38.89±10.24 C:40.17±9.73	T:19/11 C:18/12	Cooling the blood removing toxins , and transmitting tables	Poria cocos Radix et rhizoma, Cortex Eucommiae, Radix et rhizoma Gigantea, Salvia miltiorrhiza, Fructus Psoralea, Folium Honeysuckles , Forsythia aristolochiae, Rrhizoma Bupleurum, Folium Capsicum, Semen Gingseng , Folium Candidum, semen Glycyrriza Glutinosus.	Avitamin A capsules	8 Weeks	PASI score , 8-week Effective Rate
Zheng Xiaotao 2011	60/60	T:42.1±14.6 C:42.3±15.4	T:28/32 C:26/34	Anti-silver malaria soup vitamin A Capsuple	Buffalo horn powder Radix Rehmanniae praeparata, Radix paeoniae Lactiflorae, Poria cocos, Radix Panax Quinquefolium L, fructus Bupleurum L, Rhizoma, Gastrodiae L , Rhizoma Ziziphiella Asiatica, Cicada Moluccus, Scutellaria Baicalensis, Fenpao Fenghuang, Fengyuan Fenghuang, Fenghuang, Fenghuang, Radix Bupleurum Chinese , Rhizoma Atractylodies Macrocephalae	Avitamin A capsules	8 Weeks	PASI score , 8-week Effective Rate
Gonmin 2010	30/30	T:37.12±8.56 C:36.98±8.37	T:16/14 C17/1	Anti-mumps soup	Ginko biloba forsynthia Echinacea purpurea, Dandelion , Radix Rehmanniae, Cortex Eucommiae, Honeycomb , scutellaria , saffron , Peach kernal , leech, faganxia	Avicema capsule	12 weeks	PASI score , 12-week Effective Rate
Wang Li 2019	36/36	T:41.4±3.5 C:39.2±2.4	T:20/16 C:18/18	chowder	Antelope horn powder; Radix Rehmanniae praeparata , Thorium Cortex, Forsynthia , Radix Panax Quinquefolium, Radix Bupleurum, Radix Panx Paeoniae Lacti flolium, Rhizoma Polygoni Multiflori Honeysuckle Flower, Rhizoma Dandelionae.	Avitamin A capsules	12 Weeks	PASI score, DLQI score, 12- week efficiently peripheral Blood levels of Th17 Cells and related Factors and kin lesion tissue. Expression of Star RoR γ t
S.G.Y. Ho 2009	21	48.52	(14/7)		Ependra 6g, Radix Pseudotellariae Rhizoma Polygonati Odorati, Cinnamon ,Dried ginger, Antler Cream , Radix Et Rhzoma Dioscoreae, Paeonia lactiflora , Salvia Miltiorrhiza, Fenugreek , comfrey , sophora japonica, Glycyrrhiza Glabra Cynanchum officinale .	Methotrexate (A family medicine)	6 Monthss	PASI score, PGA

## Quality Evaluation

The quality of the original studies included in this systematic review was generally low. All 43 studies described randomization, but only 9 studies used appropriate randomization methods, 3 were inap-

propriate randomization methods, 9 studies reported selection bias sources, 12 studies reported loss of follow-up, 2 studies reported assignment blindness, and no detection bias was reported in any of the studies. See Figure 1 for details.

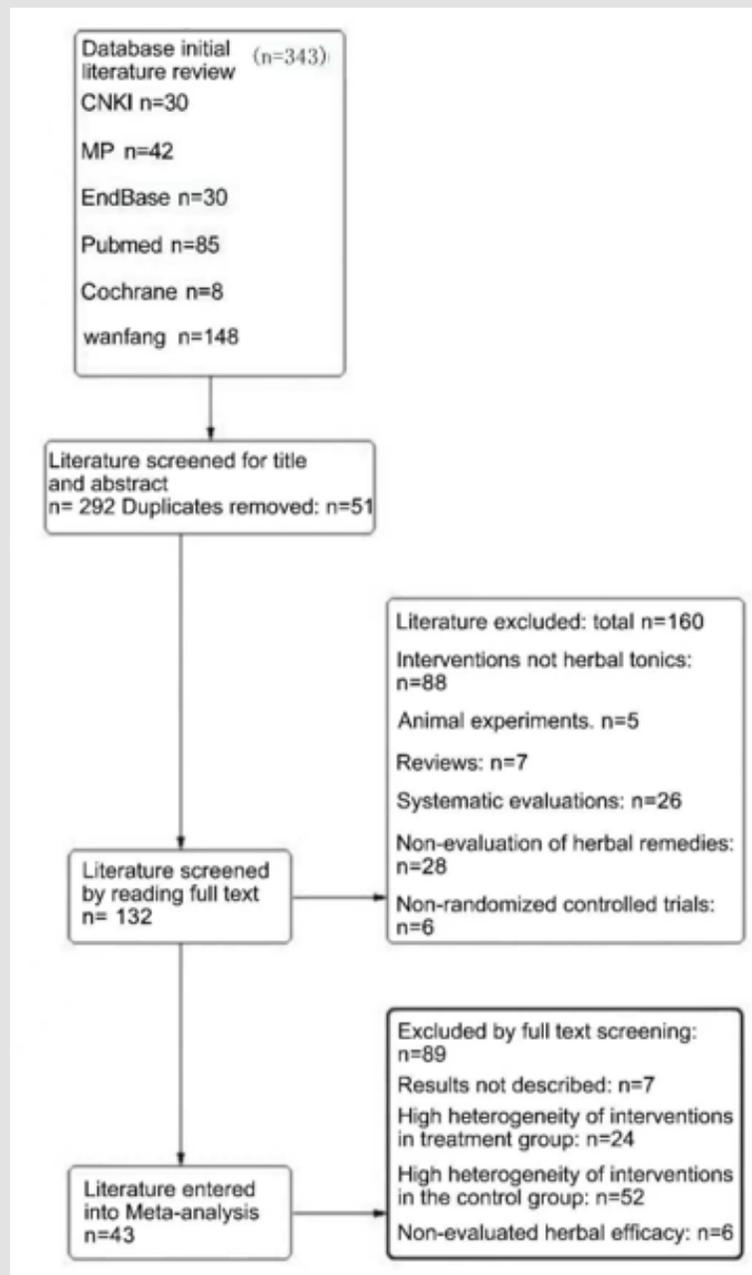


Figure 1: Literature screening flow chart.

## Effectiveness Analysis

### Efficiency:

#### 1) Chinese Medicine Group Vs Western Medicine Group

A total of 30 cases were included in the study, all of which had effective rates. They were divided into groups of 4 weeks, 6 weeks, 8 weeks and 12 weeks, and subgroup analysis was conducted for them respectively. The combined results were four weeks, six

weeks, eight weeks, or 95%CI in the order of 1.09[1.04,1.14], 1.16[1.07,1.27],1.12[1.06,1.18],1.13[1.01,1.28], as shown in Figure 2. The I of each time point was <50%, and when were combined t, the results revealed that: The four time points of the two groups were statistically compared.

#### 2) TCM Combined with Western Medicine Vs Western Medicine

	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (selection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other bias
S. G. Y. Ho2009	●	●	?	?	?	?	?
Yan Zhangren2011	●	●	?	?	?	?	?
Dai Xiaoli2009	?	?	?	?	?	?	?
He Xiangying2010	?	?	?	?	?	?	?
Liu Jian2011	?	?	?	?	●	?	?
Liu Hongxia2009	●	?	?	?	?	?	?
Liu Jing2012	●	●	?	?	?	?	?
Zhou Bo2015	●	●	?	?	?	?	?
Zhou Lidong2010	?	?	?	?	?	?	?
Sun Mei2004	?	?	?	?	●	?	?
Zuo Yuhui2012	?	?	?	?	?	?	?
Chang Yushan2011	?	?	?	?	?	?	?
Zhang Zhenhan2012	?	?	?	?	?	?	?
Zhang Lianai2011	?	?	?	?	?	?	?
Jewel Xu2010	?	?	?	?	?	?	?
Li Zhan2017	?	?	?	?	?	?	?
Li Wensue2010	?	?	?	?	●	?	?
Li Qian2011	?	?	?	?	?	?	?
Li Kuo San2011	?	?	?	?	?	?	?
Li Meihong2017	●	●	?	?	?	?	?
Li Jinglan1996	?	?	?	?	●	?	?
Yang Hu2017	●	●	?	?	?	?	?
Wang Wanchun2009	?	?	?	?	?	?	?
Wang Li2019	●	●	?	?	?	?	?
Wang Haiyan2010	?	?	?	?	●	?	?
Cheng Ying2012	?	?	?	?	●	?	?
Luo Zhiqiang2015	?	?	?	?	?	?	?
Yuan Jufen2011	?	?	?	?	?	?	?
Xie Shaoqiong2009	?	?	?	?	?	?	?
Tan Wen2020	●	●	?	?	?	?	?
He Yongqing2008	●	●	?	?	?	?	?
Jia Min2010	●	●	?	?	?	?	?
Zhao Xingmao2010	?	?	?	?	●	?	?
Zhao Jinhui2003	?	?	?	?	●	?	?
Yun Guojing2018	?	?	?	?	?	?	?
Qiu SH2005	?	?	?	?	?	?	?
Liang Yanjing2012	?	?	?	?	?	?	?
Zheng Xiaotao2011	?	?	?	?	?	?	?
Guo Wensi2011	?	?	?	?	?	?	?
Ma Xuewei2011	?	?	?	?	?	?	?
Huang Jianqiang2015	●	●	?	?	?	?	?
Huang Yongshu2012	?	?	?	?	?	?	?
Lai Ming2011	?	?	?	?	?	?	?

Figure 2: Summary of bias risk assessment.

There were 13 literatures on the use of both Chinese and Western medicines in combination, 11 of which discussed the effective rate. The effective rate was divided into three weeks, four weeks, six weeks, eight weeks and twelve weeks, and subgroup analysis was conducted

for each result. The results were all <50%, and then the fixed effect model was used for the combination. The results showed that there were statistically significant differences between the two groups at four weeks and eight weeks, and the combined results showed or

95%CI, respectively: 1.23[1.15, 1.32],1.04[0.95,1.10], but at three and six weeks, the results showed no statistically significant difference, as indicated by the combined results or 95%CI, which were 1.27[1.06,1.52],2.05[1.15,3.62], as shown in Figure 3.

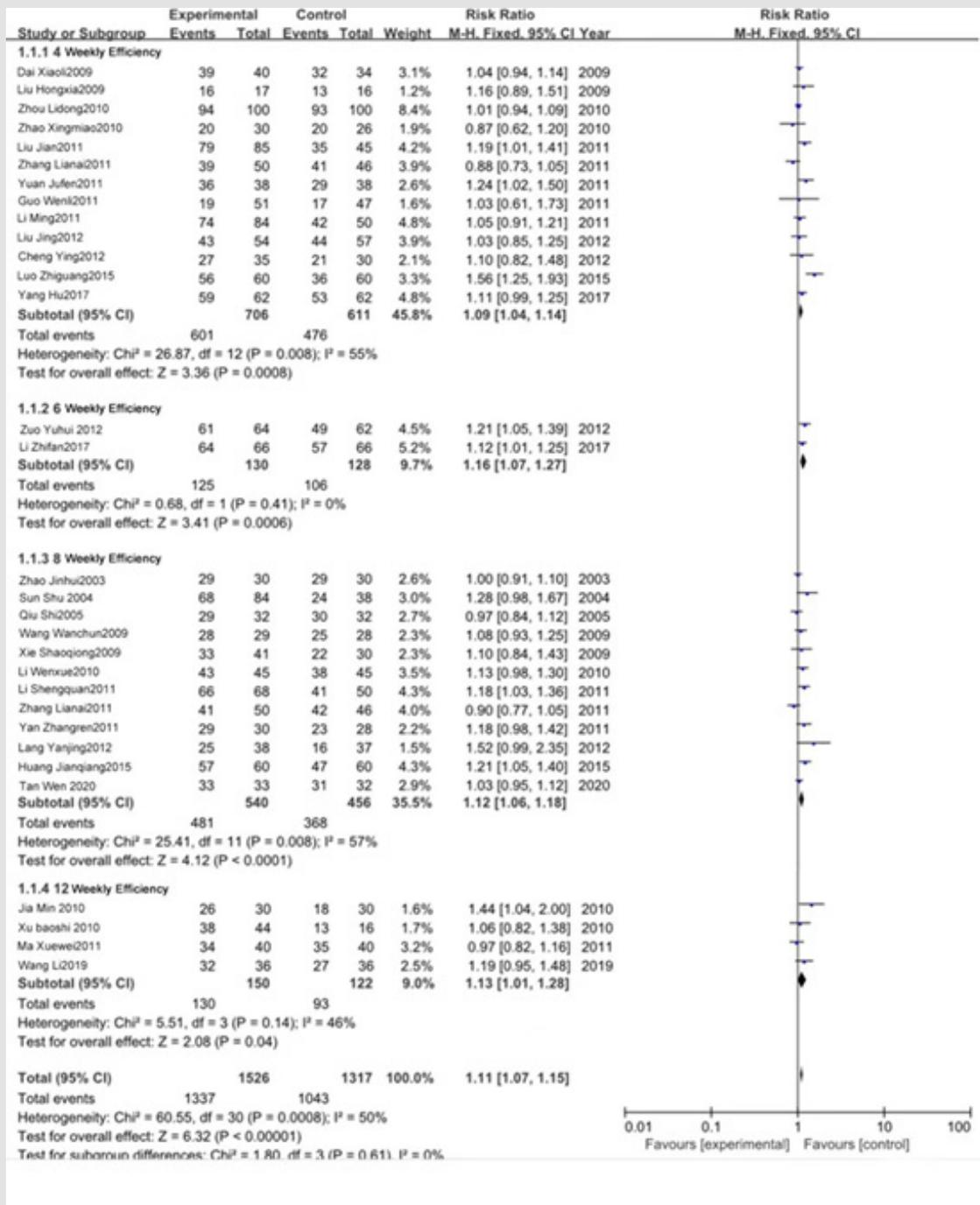


Figure 3..

**Recurrence Rate**

1) Chinese Medicine Group vs Western Medicine Group

Relapse rates were reported in 11 studies, which were divided into 4 weeks, 12 weeks, 24 weeks, 1 year and 2 years according to follow-up time. Subgroup analysis of them showed no statistically a significant difference in recurrence rates between the two

groups at 4 weeks and 12 weeks. Or if 95%CI was 0.60[0.22,1.62], 0.08[0.00,1.46], there was no statistically significant difference in the recurrence rate at 24 weeks,1 year and 2 years. The combined results at 24 weeks showed either a 95%CI of 0.46[0.28,0.77], the combined results at one year showed either a 95%CI of 0.18[0.12,0.28], and the combined results at two years showed either a 95%CI of 0.29[0.10,0.82], as shown in Figure 4.

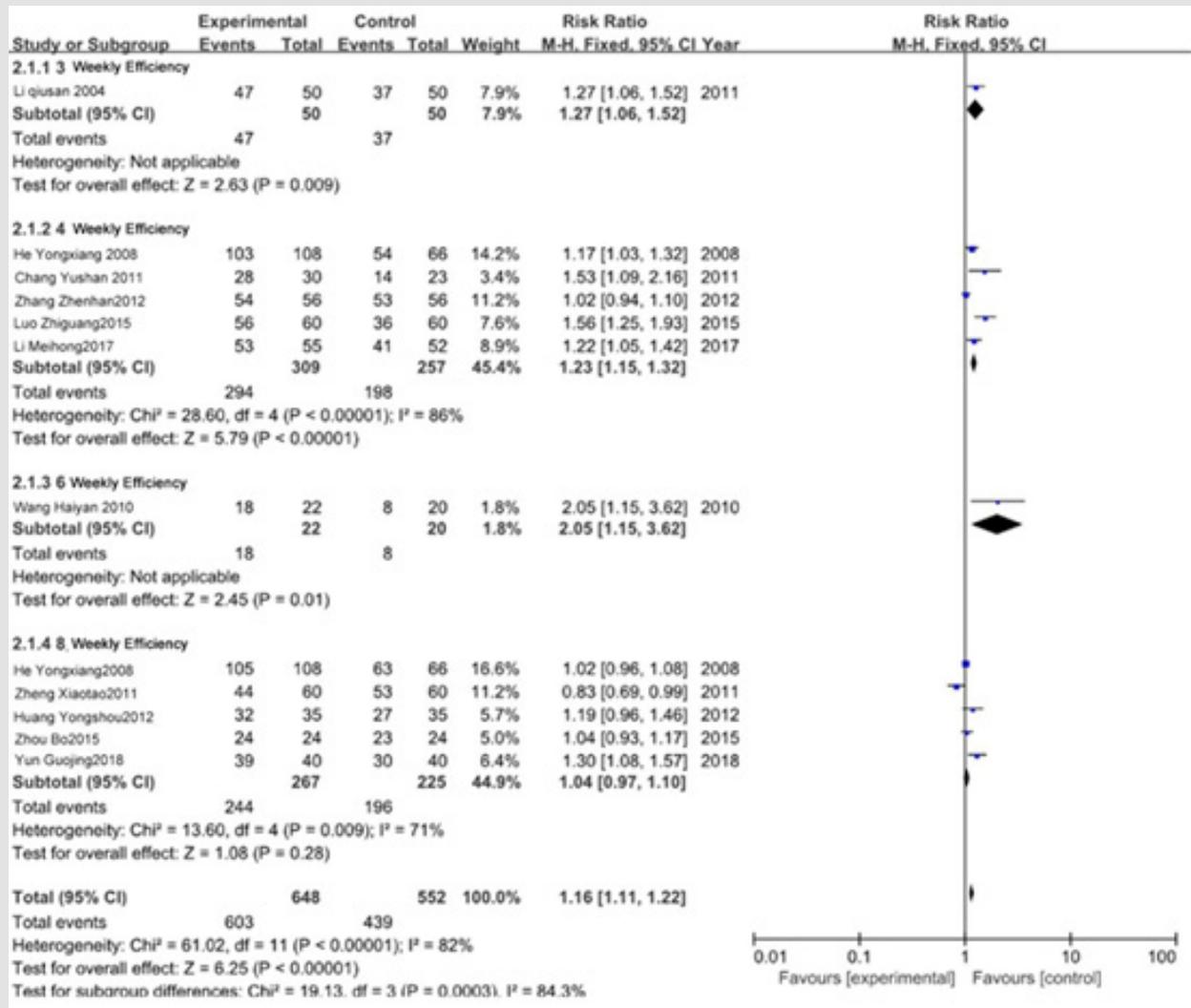


Figure 4.

2) TCM Combined with Western Medicine vs Western Medicine

A twelve-week anytime visit period was used in a study that discussed the recurrence rate; the findings revealed that there was no recurrence at that time.

**PASI Score:**

1) Figure 5 illustrates a comparison of the clinical effectiveness of Chinese medicine and Western medicine. Ten investigations on PASI scores were conducted with follow-up periods of four, eight, twelve, and six months. The comparison of the two groups' PASI

scores is shown in Table 2. As you can see, both groups' PASI scores after therapy dramatically decreased from their pre-treatment levels, which were not statistically significant. Four studies showed that the rate of deterioration was slower in the treatment group and faster

in the control group. In contrast to those four research, six studies reported results that showed a faster rate of decline in the treatment group and a slower rate of decline in the control group. In all but one trial, the differences were statistically significant ( $P < 0.05$ ).

**Table 2.**

Included in the literature	Number	Adverse Reaction		
		Control Group	Number	Treatment Group
Yun Guo 2018	40	2 cases of elevated ghrelin transaminase	40	1 cases of nausea, 1 case of drugrash, 1 case of head volume
Qiu Shi 2005	32	Side effects mainly include dry mouth, dry lips, dry skin, 32 loss of eyebrows, dizziness, headache, elevated liver enzymes in 3 cases, 1 case of Increased BUN, elevated lipids 5 cases	32	2 cases of diarrhea, 1 case of constipation and vomiting
Huang Jian Qiang 2015	60	Not have	60	not have
Li Jing Gang 1996	317	6 cases of leukocyte drop, 4 cases of mouth stains	90	Not have
Tan Wan 2020	33	Not have	32	2 cases of loose stools
Liu Jing 2012	54	5 cases of dry mouth and lips; 1 case of itchy skin	57	2 cases of diarrhea
S.G.Y. Ho 2009	21	Nausea, vomiting and elevated liver enzyme levels are common		Infections and gastrointestinal side effects have been reported, with a few experiencing liver function abnormalities.
Liu Hong Xia 2009	17	7 cases of Nausea, dizziness, dry and cracked lips, and 3 cases of abnormalities in liver function, kidney function, and lipid analysis in the control group.	16	3 cases of mild nausea, dry mouth
Li Qiu San 2011	50	Most patients had dry mouth, dry skin, mild flaking, and some had itching. Two cases had elevated ghrelinase.	50	Most patients experienced dry mouth, dry skin, mild flaking, and some experienced itching. No serious adverse reactions were observed in the group.
Huang Yong Shou 2012	35	1 cases of skin irritation	35	Not have
Chang Yu San 2011	23	5 dry mouth, 4 posterior treatment ryness, 7 dry skin, 4 flaking, 4 cancer itching	30	2 posterior dryness, 3 dry skin, 2 flaking, 2 itching

Wang Hai Yan 2010	20	1 case of mild elevation of hepatic glutathione (ALT); 2 cases of gastric upset with occasional nausea and non-vomiting	22	One case of alopecia areata: one case of mildly liver ALT. (500/L), the drug was not stopped during the treatment period, and the liver function was normalized after hepatoprotective treatment such as hepatoprotective tablets were given, and the examination was still normal one month after the drug stopped; stomach discomfort  1 case, the drug was not stopped and the dosage was not reduced. Symptoms were relieved after giving symptomatic treatment such as protecting the gastric mucosa.
Cheng Ying 2012	35	Not have	30	Not have
Dai Xiaoli 2009	40	2 cases of elevated blood pressure	34	1 case of elevated blood pressure
Zhao Jin Jui 2003	30	6 cases of dry mouth, dry lips, dry skin and generalized dehiscence, sever with fissured lips and mouth	30	1 case of diarrhea
Guo wen Li 2011	32	All patients experienced varying degrees of dry lips with chapped lips, dry eyes, and dry skin, with some patients experiencing present with itchy skin. Two of the cases in the Avitamin A group showed mild lipid The enzyme was elevated in two cases, and alanine aminotransferase and aspartate aminotransferase were elevated in two cases.	30	All patients had varying degrees of dry lips with chapped lips, dry eyes and dry skin, and some had itchy skin cancer.
Zhao Xing Miao 2010	30	5 cases of mouth shield dryness, delayed cracking, flaking Mingyi	26	2 cases of mild dizziness and panic, 2 cases of dry, cracked, flaky lips,
He Xiang Ying 2010	60	2 cases of elevated glutathione 45 nil	40	No serious adverse reactions
Li Wen Xue 2010	45	Not have	45	Mild diarrhea in 3 cases, mild dry mouth dry mouth and flaking in 12 case
Li Ming 2011	84	Not have	50	Not have
Ma Xue Wei 2011	40	3 cases presented with varying degrees of labial inflammation, and seven cases presented with skin Itching, significant flaking of the takedown toe, nausea in 2 cases, abdominal	50	Not have

Xie Shao Qiong 2009	41	25 case of dry skin and mucous membranes, 2 cases of increased liver enzymes, lipid Increased height, headache and tinnitus in 1 case, gastrointestinal discomfort in 2 cases	30	Gastrointestinal discomfort 2 cases
Zhang Liana Ai 2011	50	14 cases of itchy skin, 2 cases of elevated lipids, 1 cases of elevated blood glucose	46	4 cases of gastrointestinal discomfort, 1 case of diarrhea
He Yong Xiang 2008	108	Not have	66	Not have
Zheng Xiaotao 2011	108	10 cases of stomach upset and nausea and vomiting, and 4 cases of leuko-fine Cell Decline	60	6 cases had mild stomach upset and 2 cases had mild diarrhea;
Jia Min 2010	30	not have	30	6 cases of nausea, 2 cases of loss of appetite, 2 cases of membrane diarrhea

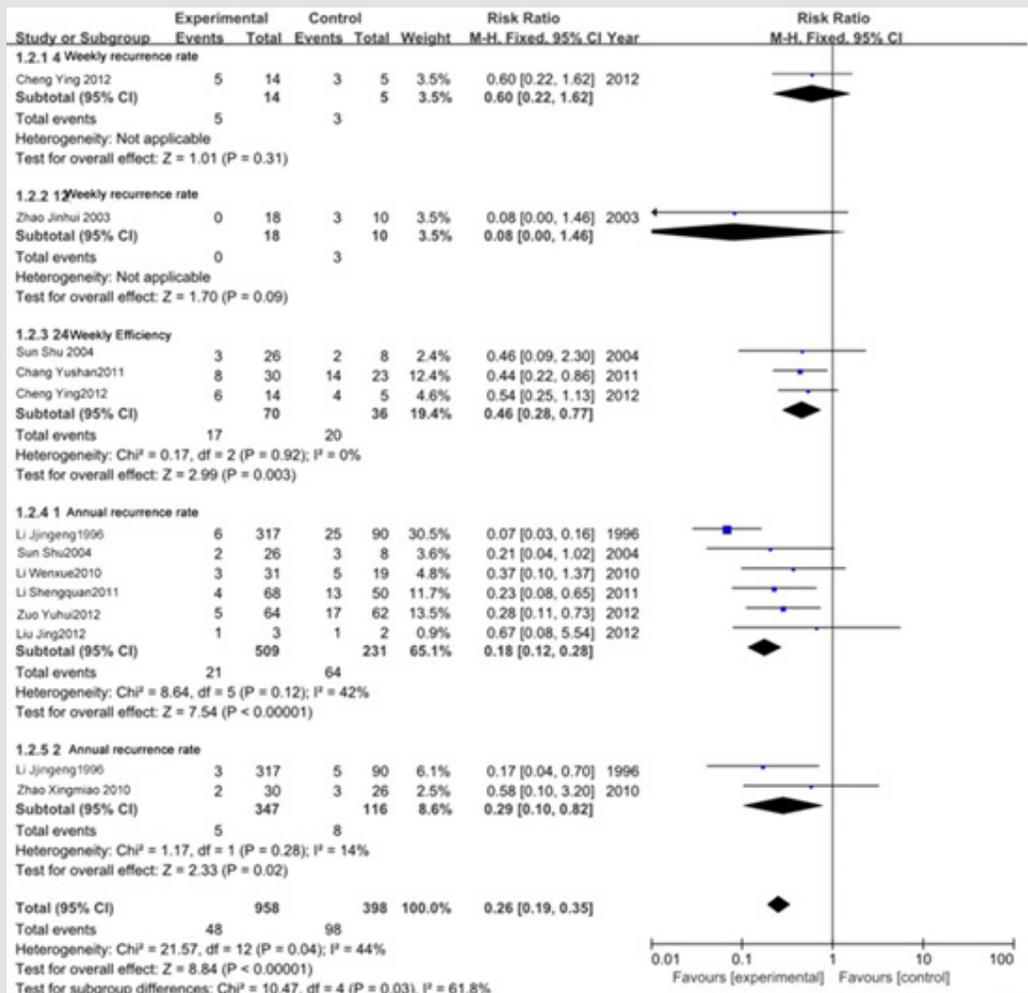


Figure 5.

2) Comparison of clinical efficacy between TCM combined with Western medicine group and Western medicine group is illustrated in Figure 6. These studies showed that PASI score results could be obtained, and the time points were recorded in the 4<sup>th</sup>, 8<sup>th</sup> and 12<sup>th</sup> weeks. The differences of PASI before and after treatment between the two groups of patients can be seen in Table 2. Before treatment, there wasn't much of a difference between them, and the statistical

significance was minimal. After treatment, both the experimental group and the control group's PASI exhibited a significant downward trend. One study showed that the downward trend in the treatment group was much higher than that in the control group, and three studies showed the opposite, indicating that these differences were statistically significant ( $P < 0.05$ ).

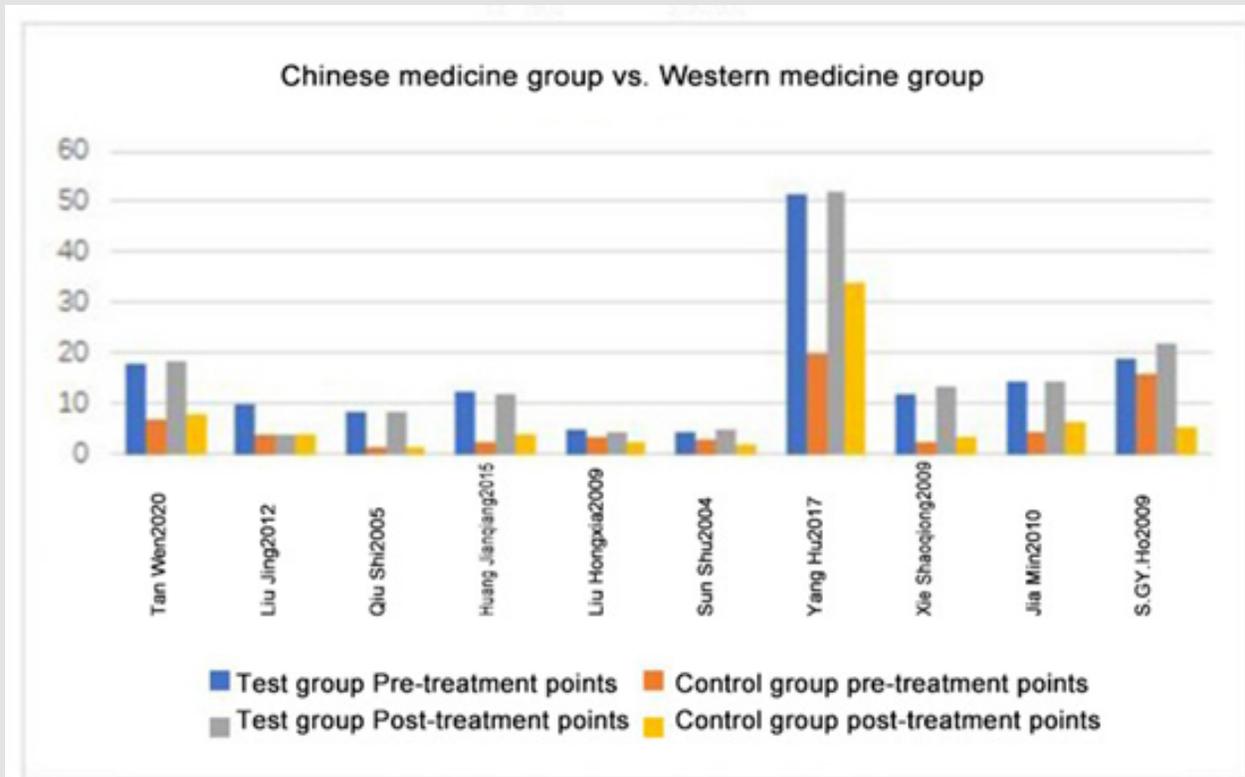


Figure 6: Comparison of PASI scores before and after treatment between the two groups.

**“Inverted Funnel” Analysis:** The traditional Chinese medicine group was compared with the western medicine group, and the traditional Chinese and Western medicine group was compared with the Western medicine group. Clinical trials were taken to analyze the two groups' respective effective rates and recurrence rates. It is evident that the clinical effective rate of the two groups' funnel diagrams is symmetrical. The clinical recurrence rate of the two groups is shown to have a significantly asymmetrical funnel plot, indicating a large potential bias. The two funnels are each symmetrical, showing that the bias of their effective rate is minor. See (Figures 7 & 8) (A,B,C,D).

**Security Analysis:** The 43 studies that were included in this systematic review conducted safety analysis (see Table 2 for details). 17 studies did not report any adverse drug reactions (ADR), while 26 studies did. There were no significant adverse drug reactions (ADRs)

detected, and adverse reactions in the treatment group were generally milder than those in the control group. ADR was identified in 13 out of a total of 21 studies using acitretin as the control medication. In the treatment group, most of the ADRs occurred dry eyes, dry skin and partial pruritus, 20 cases of dry mouth, 14 cases of desquamation, 13 cases of nausea, 12 cases of diarrhea, 12 cases of gastrointestinal discomfort, 3 cases of dizziness, 2 cases of loss of appetite, 1 case of constipation, 1 case of vomiting, and 1 case of drug rash. In the control group, most ADRs occurred intraocular dryness, skin dryness in 25 cases, skin pruritus in 21 cases, nausea in 19 cases, elevated blood lipids in 14 cases, lip dryness in 12 cases, skin mucous membrane desquamation in 12 cases, gastrointestinal discomfort in 12 cases, dizziness in 7 cases, elevated liver enzymes in 5 cases, elevated alanine aminotransferase in 4 cases, leukocytosis in 4 cases, cheilitis in

3 cases, aspartate aminotransferase in 2 cases. Abdominal pain in 2 cases, BUN1 in one, dizziness in 1 one, tinnitus in 1 one and elevated blood sugar in 1 one. In the treatment group, there were 3 cases of

diarrhea, 3 cases of dry skin, 2 cases of cheilitis, 2 cases of desquamation and 2 cases of pruritus.

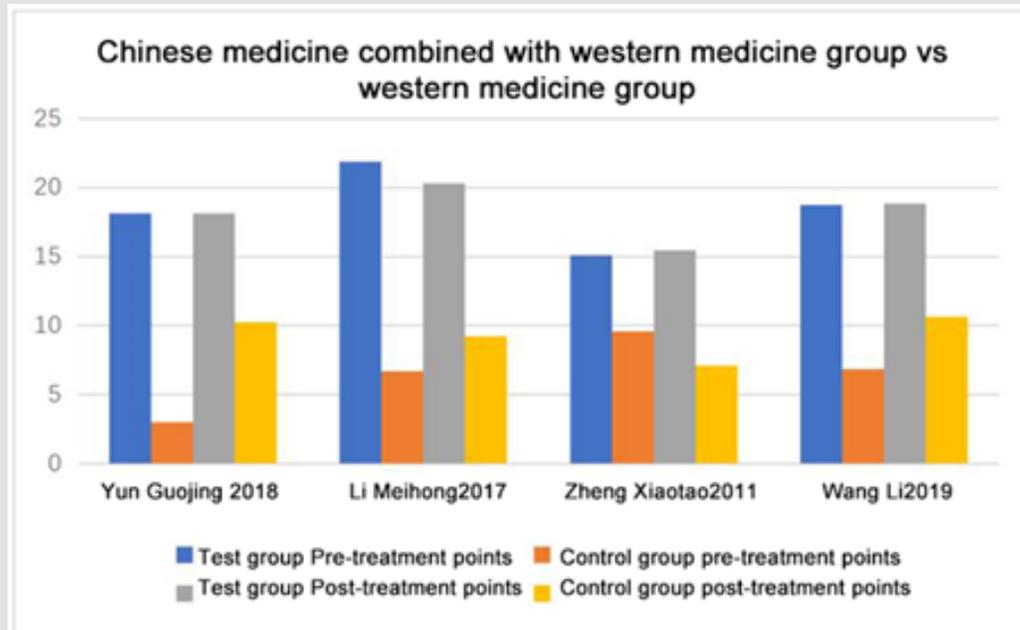


Figure 7: Comparison of PASI scores before and after treatment between the two groups.

In the control group, 5 cases had skin symptom with itching, 2 with desquamation, 13 with dry skin surface, 21 with dry lip epidermis, and 16 with dry mouth. A total of 6 studies took compound glycyrrhizin as control drug, of which 5 reported ADR, most patients showed dry mouth, dry skin, mild desquamation, and some skin pruritus, including 1 case of nausea, 1 case of drug eruption, 1 case of dizziness, and 1 case of elevated blood pressure in the treatment group. In the control group, there was 1 case of skin irritation, 2 cases of a certain increase in blood pressure, 6 cases of elevated alanine aminotransferase (Alt), 3 studies using methotrexate as the control drug, 1 case of alopecia, 1 case of mildly elevated Alt and 1 case of stomach discomfort in the treatment group. In the control group, nausea, vomiting, and raised liver enzyme levels were frequent. One incidence of moderate alanine aminotransferase elevation and two episodes of stomach distress also occurred. Only one study out of a total of two that used salicylic acid as the control medication noted

any negative effects. Mild alanine transaminase and stomach upset were reported in both groups, and alopecia was also reported in the treatment group. In a total of 1 study using diketozone as the control drug, there was no adverse reaction in the treatment group, and the white blood cells in 6 cases of the control group dropped below 4000/mm<sup>3</sup> during the treatment period, and 4 cases developed oral ulcers. In 1 study with retinoic acid ointment as the control drug, there was no adverse reaction in the treatment group and skin irritation in 1 case in the control group.

In a total of 1 study with dejasone and uremic cream as the control drug, 2 cases of mild dizziness and palpitation in the treatment group, 2 cases of lip dryness, chapping and obvious desquamation. 5 cases of dry lips, chapped, desquamated were present in the control group., Penicillin and compound aminopeptin were used as control drugs in the study, and there were no adverse reactions.

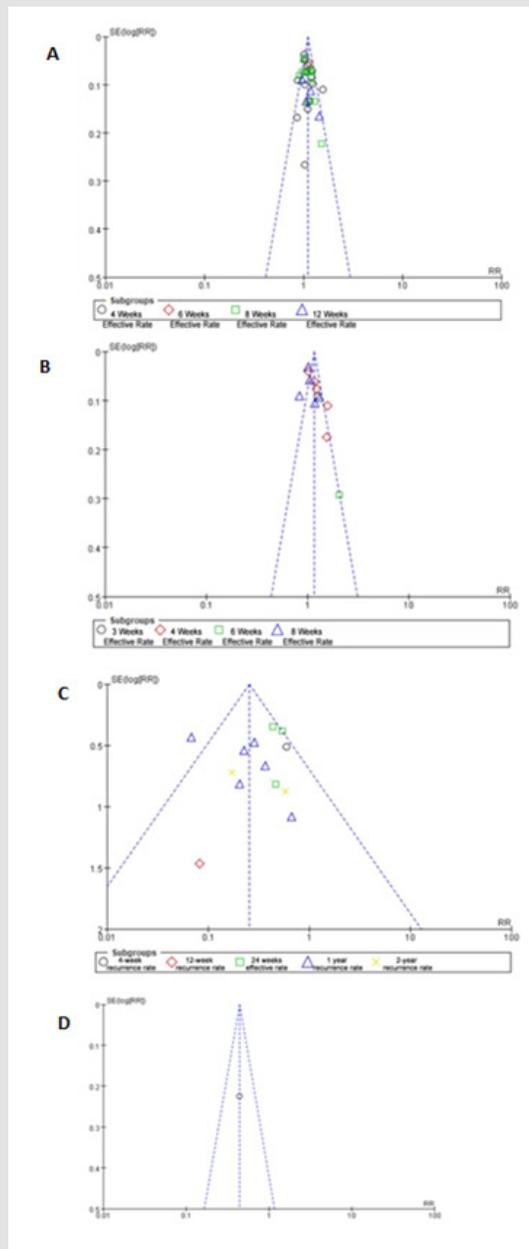


Figure 8:

- A. Funnel diagram of effective rate of Chinese medicine group vs Western medicine group.
- B. Funnel diagram of effective rate of Chinese medicine combined with Western medicine group vs Western medicine group.
- C. Funnel diagram of the recurrence rate of Chinese medicine group vs Western medicine group.
- D. Funnel diagram of the recurrence rate of Chinese medicine combined with Western medicine group vs Western medicine group.

## Discussion

According to the literature [13], many medical scientists still adhere to the treatment principle of “blood based treatment”, which is manifested as acute hot air of blood and chronic period of blood

stasis, blood deficiency, blood dryness and other syndroms. They utilize the approaches that they believe to be beneficial for treating psoriasis, such as removing heat and cooling blood to dissipate wind, stimulating blood circulation to remove blood stasis, nourishing blood to moisten dryness, etc. Before conducting a thorough review

of the literature, we established the inclusion criteria for the “blood based treatment” method, stipulating that the experimental group had to receive a traditional Chinese medicine decoction and that the blood-classified drugs in the decoction should make up at least five or fifty percent of the total amount of drugs. The judgment and classification of drug efficacy were also clearly stipulated, requiring that the fifth edition of the new century Chinese Pharmacy, a planning textbook for traditional Chinese medicine in general higher education, be used as a reference basis, on which we evaluated the effect of “blood based treatment” on psoriasis.

The quality of the original literature that was summarized in accordance with the systematic evaluation has to be improved in terms of the included literature’s quality. All of the research mentioned above mention randomness, but only nine of them actually use the right randomization technique. Additionally, three of the randomization procedures were incorrect and carried a high risk; nine studies’ source selection was skewed; and twelve studies failed to publish their access methods. These flaws in the allocation methods of two of the studies resulted in blind spots. However, the original studies that were included in these papers were already biased, therefore the planned “blood-based” clinical trials for psoriasis have not yet been confirmed. In reality, none of these investigations found bias or any other issues. Different category indicators, including PASI, response rate, and recurrence rate, were proposed in this study to examine the efficacy of “blood based treatment” for the treatment of psoriasis. Additionally, the therapeutic effect can be separated into two groups based on these factors. The first group compares traditional Chinese medicine and Western medicine, comparing the therapeutic effects of each, while the second group uses a combination of traditional Chinese and Western medicine and compares two different facets of Western medicine.

The above plan is based on the premise of treatment effect. Patients in the first group should set a fixed time period to record their treatment conditions respectively, including the time points of 4, 6, 8 and 12 weeks, in which the recorded results show or 95%CI as follows: 1.09 [1.04, 1.14], [1.07, 1.27], 1.16 1.12 [1.06, 1.18], 1.13 (1.01, 1.28]. In addition, in the second group, there was no significant difference in treatment at the third and sixth weeks, and there was a large difference between the fourth and eighth weeks, which was of high statistical significance. Studies showed that there were only a handful of reports on the recurrence rate, among which there were 11 studies on the recurrence rate in the Chinese medicine versus Western medicine group. However, the results showed that the recurrence rate in the two groups at week 4 and week 12 was not statistically significant, with 95%CI was 0.62[0.22,1.62], 0.08[0.00,1.46]. The difference in recurrence rates between the two groups was highly statistically significant at 24 weeks, 1 year, and 2 years. However, there was only one study evaluated the recurrence rate between the Western medication group and the group receiving both Chinese and Western treatment. According to the difference in the recurrence rate between the two

groups, there was no statistical significance at the twelfth week, and the combined results showed that the 95%CI was 0.44[0.28,0.68].

By comparing PASI as an evaluation index, it is not difficult to see that the difference between the first two groups of Chinese medicine and Western medicine is not statistically significant. After treatment, PASI in both the test group and the control group showed a decreasing trend, among which, four studies showed that the control group was far higher than the treatment group, on the contrary, six studies showed that the treatment group exceeded the control group. Based on the difference, only one study was not statistically significant, while the others were ( $P < 0.05$ ). Additionally, there was no statistically significant difference between the traditional Chinese and Western medicine and Western medicine groups prior to treatment and both the experimental group’s and the control group’s PASI showed a downward trend after treatment. Three studies showed that the decreasing trend of the control group was significantly higher than that of the treatment group, and one study showed that the treatment group was higher than that of the control group, and the difference in research data was also statistically significant ( $P < 0.05$ ). The results of the combined analysis above indicate that the “blood based treatment” of psoriasis has certain advantages in improving clinical efficacy, reducing adverse reactions, and reducing recurrence rate.

However, due to the methodological problems included in the studies and possible publication bias, these limitations must be taken into account in the conclusions drawn. The origin of the traditional Chinese medicine theory of psoriasis “blood based treatment” is the belief that the development of psoriasis is closely related to the activation of T lymphocytes and the cytokines produced. This belief may be an important pathological basis for the “blood based treatment” of psoriasis. Psoriasis is often caused by blood heat, a long time to consume Yin blood damage, blood dryness, blood stasis syndrome, manifested in a certain period of clinical patients often to a type, mixed with other types of syndrome. Herbal remedies for cooling blood can remove activated T lymphocytes and cytokines, cool blood and eliminate plaque, herbal remedies for nourishing blood can improve blood concentration, viscosity and aggregation [14], eliminate erythema, and correct epidermal hyperplasia and hypokeratosis [15,16]. The results of this systematic evaluation also fully show that the effect of “treating psoriasis vulgaris from blood” alone or combined with Western medicine is better than that of Western medicine, which provides full proof for our theory. The application of Chinese medicine in the treatment of psoriasis had less adverse responses than traditional Western medicine, and those that did occur were often modest [17]. This suggests that using Chinese medicine to treat psoriasis is safe.

Among them, the adverse reactions produced in the treatment of psoriasis are mainly dry mouth and dry skin, which is fundamentally because of the damage to the body fluid during the treatment of psoriasis. Because of this, psoriasis therapy should not only pay attention to how blood medicines are used, but also to the protection of body fluids, as this has raised the alert for us. Overall, this analysis demon-

strates that the “blood based treatment” method to treating psoriasis has yielded excellent results, although further research is necessary because of the relatively low quality of the included trials.

### Suggestions for Future Studies

- 1) Improve the quality of RCTs, avoid low-level duplication, pay attention to sample size estimation, randomization, blind application, and record and analysis of lost follow-up cases.
- 2) Pay special attention to the effect of long-term treatment and recurrence rate of the disease.
- 3) In order to better transmit the latest systematic evaluation from abroad to our country, so as to promote the better development of domestic medical service, it should be popularized on a large scale, introduce and publicize the effects and benefits of systematic evaluation.
- 4) For most dermatologists, it is necessary to fully analyze and master evidence-based medicine, so as to understand it thoroughly.
- 5) Since most of the literature adopts a one-end treatment method, which is contrary to the nature of TCM treatment, the most important thing at present is to find out the treatment method that is most in line with the characteristics of TCM, and prepare for future TCM research.

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Zhu Zhu. Biomed J Sci & Tech Res



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