Comprehension and Experience of Acne Treated with Traditional Chinese Medicine Facial Mask of Bai Zhi (Radix angelicae formosanae) and Bai Fu Zi (Rhizoma typhonii gigantei) as the Basis Formula by External Application

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ABSTRACT
Acne is a kind of commonly-encountered and frequently-occurring disease that influences people’s beautiful outlook and mood easily. Acne’s etiological factors are related closely to living habits, food habits, psychological factor, environmental factor, endocrine, genetic factor, improper use to cosmetics, and so on. Under the condition of worrying about that chemical drugs treatment induces another kind of sequelae, the cosmetology of traditional Chinese medicine has been more and more paid attention. For the non-fine mouthfeel by TCM oral use and the inconvenience of decocting, the application of external treatment with traditional Chinese medicine facial mask has been more widespread. The traditional Chinese medicine facial mask of Baizhi (Radix angelicae formosanae) and Baifuzi (Rhizoma typhonii gigantei) as the basis formula can directly protect, recondition and ameliorate acne.

Key Words: Comprehension; Experience; Acne; Radix angelicae formosanae; Rhizoma typhonii gigantei; Traditional Chinese Medicine Facial Mask; Traditional Chinese Medicine Treatment

1. Introduction
Acne is one kind of chronic inflammation dermatoses that involve sebaceous follicles, whose incidence rate is high. It always occurs on the position with abundant sebaceous glands of face, neck, manitrunk, back and so on. It manifests the skin damage such as comedone, papulae, pustules, nodus, cysts and cicatrix, especially the severe type acne has been easy to form cicatrix. So acne may influence the people’s beautiful looking, and sometimes shows harmful effects on the patient’s emotions and behavior [1]. The difference in finding of acne incidence studies is comparatively large, and different area, different nationality and different age has different incidence rate. In recent years, studies indicate that total prevalence of acne of middle school students in Malaysia, Indonesia, Macao and Guangzhou is 51.13%, among which the male is 53.35% and the female is 46.65%. Prevalence difference between male or female has no significance (P = 0.062). The middle school students’ acne prevalence in four areas is 65.24%, 58.26%, 45.47% and 32.81% respectively. Area prevalence difference is significant (P = 0.000). It shows that acne prevalence in Malaysia middle school students is much higher than China local region [2]. The cause of acne growth includes many factors, such as age factor, bedtime less than eight hours, usually sleeping late, smear cosmetics, skin factors about neutral or oil and mixed pattern, the acne patient’s family history, stress, menstruation disorder, frequent insomnia, high caloric diet, menorrhalgia, anxious, depressed, study pressure, eating spicy and frying food, and so on. Researches show that to squeeze and pinch erythra is the risk factors to acne cicatrix formation [3]. Moreover, constipation, venting foul, halitosis, abdominal distension, and long body hair around areola papillaris, are also the risk factors to acne.

2. Traditional Chinese Medicine Facial Mask
Traditional Chinese medicine facial mask also calls Chinese herbs facial mask, whose characteristic is, by means of herbs as the main component, to use herb powder or
maybe add helper constituents fairly, and directly adjust to paste, apply it on skin of face, neck or back, retain a certain time then clean. Its advantage lies in blending actively, convenience and reliability. Its effect on treating acne is also outstanding. External therapy with traditional Chinese medicine facial mask is the method that administering by body surface to treat looks-damaged disease and skin defective. Specifically, to apply traditional Chinese medicine made of different dosage forms to the skin, mucous membrane or hair can manifest body surface therapy action or health care effect. The effect may be sterilizing, disinfecting, eliminating inflammation, relieving pain, alleviating itching, and nutriting and so on. The effect may show quickly by directly medicating medicine on skin to discosmetic dermatosis or skin defect that local symptom is salient. For the problem of face skin treated by traditional Chinese medicine for oral use is not enough, to use Chinese herbs facial mask to apply skin can let it absorb active constituent and promote the curative effect to acne.

The mechanism of action of Chinese herbs facial mask, firstly, is skin cleaning in deep layer. Like washing face, cosmetology by steam, facial massage, and facial mask may penetrate deeply and thoroughly to skin, and can adhere to scale, filth and dead skin on surface or superficial follicular orifice. Secondly, it is gentle stimulation, which can positively promote local blood circulation, lymphatic return and metabolism of skin. Thirdly, it is antiwrinkling and antiaging. Chinese herbs facial mask can relatively increase the skin surface water, and meanwhile, has an apparente dermostenosis effect that benefits the relaxation of skin fibrous tissue and muscle where facial mask is placed. To keep skin moisture capacity and slow down the relaxation of fiber and muscle is an important way to prevent aging. Fourthly, it is promoting absorption of nutrient or drugs. Finally, it is beautifying and bleaching. To use suitable Chinese herbs facial mask frequently may make skin moist and ruddy, increase elasticity and reduce rhytides.

3. Difference of Acne Therapy between Facial Mask by External Application and Traditional Chinese Medicine for Oral Use

Chinese herbs for oral use to acne patient should be based on diagnosis by four diagnostic methods, eight principles and differentiating syndrome of traditional Chinese medicine. According to etiological factor and pathogenesis, acne has five types roughly such as syndrome of blood heat due to lung heat, syndrome of dampness-heat of spleen and stomach, syndrome of dampness-heat of liver and gallbladder, syndrome of heat-toxin stagnated, syndrome of blood stasis and coagulated phlegm. So we should treat it by means of choosing adaptive prescriptions to aim directly at these patterns of syndrome. But most people fear the bitter and acerbity taste of decoction and dislike to decoct traditional Chinese medicine for a long-time. Even for improper regulation on decoction time or timing in cooking, the traditional Chinese medicine was bad or scorched and need to re-decoct. If we make a mistake on differentiating syndrome, and deviate slightly to diagnose the acne patient, it would lead to a non-accurate prescription, and then the patient would not obtain the effective treatment. If therapy was delayed too long, the skin would form pockmark. So, in Malaysia, to treat acne by Chinese herbs for oral use is not popular. Many acne patients are willing to seek expensive beauty experts, dermatologist or cosmetology products to cure. But it also has no ensure that it can ameliorate acne. And using Chinese herbs facial mask to treat acne is no more complicated than Chinese medicine for oral administration that needs four diagnostic methods, eight principles and differentiating syndrome. Just to aim at the light or severe degree of acne, or the polymerized or atrophied degree of acne’s comedone, pimple, pustule, cyst, nodule, and dispense Chinese herbs, it may obtain the curative effect, and the drug use for facial mask has also no more taboos. For example, Bai Fu Zi (Rhizaoma typhonii gigantei), also called Yu Bai Fu, is pungent flavor, sweet, warm-natured, toxic, and if for oral use, it should be cautious and avoid to be poisoned. To severe acne, it may result in no way curing radically if reduce dosage. And to apply facial mask, it doesn’t need a great quantity agentia of Chinese herbs, and by appropriately differentiating syndrome, good result may be obtained.

Using Chinese herbs facial mask can save the time to stew medicinal herbs, and it may play therapeutic effect just to apply face with pasty traditional Chinese medicine that mixed boiled water into drug powder, and after the facial mask becomes damp-dry then clean it. Compared with medicines for oral use, the dosage and medication category of Chinese herbs facial mask are few, the prescription is more economical. Generally, in Malaysia, one dose oral Chinese medicine formula costs 15 Ringgit, one week course of treatment needs 3 doses, and for one month it may cost 180 Ringgit, which is a minor burden to ordinarily paid people or part of common family. To Chinese herbs facial mask, it’s the same that one week course of treatment needs 3 times, 50 grams facial mask powder could be used for one month just cost only 10 Ringgit. But the expense for diagnosis by beauty expert and dermatologist or for cosmetology product may be more expensive. This shows that Chinese herbs facial mask is convenient to apply, because it is no worry of decocting drug. What’s more, the absorbed drug toxicum is little, the bitter taste and acrid odor of Chinese herbal drugs also can be avoided. It is consistent with modern
people’s purpose of saving time, convenience and economy.

4. The Basis Formula Used Frequently in Chinese Herbs Facial Mask for Acne Therapy

Chinese materia medica beautifying is the method by using traditional Chinese drugs to beautify the patient under the directions of traditional Chinese medicine basic theory. It not only has the action of aesthetic health care, but also has the therapeutic action. The drugs are divided into two kinds: oral use and external application. The external application drugs can be used in Chinese materia medica cosmetics, and is very close to the beauty of life [4].

During the year 2009 to 2011, We had used Bai Zhi (Radix angelicae formosanae, Figure 1 [5]) and Bai Fu Zi (Rhizoma typhonii gigantei, Figure 2 [6]) as the basis formula of facial mask, and pulverized, applied on the face to treat acne patients, and regulated the herbs according to the degree of facial acne’s severity, pimples, papules, pustules, cysts, nodules, polymerization and atrophy. It’s found that the above-mentioned facial mask by external application to treat acne could achieve better curative effects. The efficacy of Chinese materia medica in basis formula: 1) Bai Zhi (Radix angelicae formosanae): Its beauty action is to subside swelling and discharge of pus, reduce macule and whiten, nourish muscle and skin, clean tooth and perfume mouth, and deodorize. The pharmacology research shows that it can restrain bacteria and skin pathomycete [7], inhibit inflammation and relieve pain [8], expand blood vessel significantly [9], ameliorate microcirculation, promote the skin metabolism, delay skin aging, reinforce skin photoallergy [10], and reduce facial color spot. So it is commonly used in external formula for vitiligo and acne. But attention should be paid to allergic reactions if the cosmetics contain this component. It is the meridian-lead-in drugs to face in clinical application, and used in face cream to remove ecchymoses or scar, and moist skin. It also can match with vinegar to apply face which can emolliate skin cutin and promote metabolism, and also adjust the pH value to maintain health, and the formula’s action is to activate blood flow and remove blood stasis, subside swelling and soften hard mass, and remove ecchymoses and eliminate nevus [11,12]. 2) Bai Fu Zi (Rhizoma typhonii gigantei): It can diminish stagnation by detoxification, moisten skin and whiten face, reduce scar on the skin, remove ecchymoses, and eliminate wrinkles. Modern research shows that it can inhibit bacteria [13], antagonize inflammation [14], strengthen immunological function [15] and heighten blood complement, and has a comparatively strong sedation effect. Its clinical application is usually to treat acne, rosacea, and various kinds of color spot, cicatrix, and wrinkles. In cosmetology, it is also used as the facial cosmetics, additive, preservative, skin-protective agent for external use [11,12].

5. Literature Evidence on Clinical Application of Radix angelicae formosanae or Rhizoma typhonii gigantei Treating Acne

To use the Chinese full-text data base CNKI (China National Knowledge Infrastructure) to index the related literature of clinical application of Radix angelicae for-
mosanae treating acne with the key words or subjects “Bai Zhi” and “Cuochuang (acne)” from 1980 to 2011, we find 172 writings. If excluded the repeating writings, individual case reports, patents and review, 50 valuable original articles of clinical observation of TCM contained Radix angelicae formosanae treating acne were obtained. For example, Doctor S. H. Guo had applied with a Chinese traditional preparation agent, Baizhucuokang powder, to treat 47 acne patients with one time per day for 6 days. After 3 to 6 months treatment, 38 patients were cured, 16 patients were mended, and 3 patients failed to respond to the treatment. The total effective rate was 94%. Throughout the treatment, there were no allergic reactions among the patients [16]. Doctor H. Z. Tu had put Radix angelicae formosanae in an important position to treat 84 acne patients with decoction by mouth. The dosage of Bai Zhi was 15 to 30 grams. Through 7 to 40 days treatment, 81% patients were cured, 15% patients were mended [17]. And as for Rhizoma typhonii gigantei, we also had taken the same above-mentioned method to index with the key words or subjects “Bai Fu Zi” or “Yu Bai Fu” and “Cuochuang (acne)”, and obtained 31 writings. To use the same standard to rule out, 8 articles about clinical observation of TCM contained Rhizoma typhonii gigantei treating acne were worthy. For example, Doctor P. J. Xu had treated 100 acne patients by applying Shuang Bai Powder (Rhizoma typhonii gigantei and Radix angelicae formosanae). The dose-ratio between Bai Fu Zi and Bai Zhi is 4:6. One course of treatment is 7 days. After one course of treatment, the skin damage of 60 patients was cured and 21 patients were mended, 19 patients had no effect. 24 patients were recurred after one year, but after they had been treated again with Shuang Bai Powder for 1 to 2 course of treatment, the skin damage of acne was wiped out [18]. It is thus clear that the clinical application of Rhizoma typhonii gigantei and Radix angelicae formosanae treating acne is quite extensive and the therapeutic effect is worth to affirming.

6. Medical Records

Case 1: A female patient whose surname Dai, aged 36, was newly diagnosed in 2009 April. The patient was suffered by facial acne for many years; modern medical doctor distinguished as hormone disharmony, and was once treated by western medicine without good results. For her once menstrual onset needs three or four months, she was nursed the syndrome with Chinese prescriptions, but acne was still severe. Examination: Now red papulae were easily covered with a great quantity of greases. Diagnosis: Acne papulosa. Etiology and pathogenesis: It was because of working environment mainly. The patient worked in foreign capital factory and faced computer and air conditioner for a longtime everyday. The room air was dried, and she always kept sitting posture without activity, which usually made the skin in tensional condition, and lead to the skin slowing down its metabolism and cutting down its power of resistance, so it easily induced facial acne. Moreover, dried inside air could easily evoke sebaceous gland secret vigorously, then the bacillus acnes, demodex folliculorum and acarid was easily multiplied that induced skin to be infected. Therapeutic principles: Dissipating dampness and removing toxicity, ameliorating facial microcirculation, hastening skin metabolism, harmonizing skin moisture content. Drugs: Bai Zhi (Radix angelicae formosanae) 10 g, Bai Fu Zi (Rhizoma typhonii gigantei) 10 g, which were routinely levigated and mixed with clear water to stir into a paste, applied on face, maintained 20 minutes, then cleaned. The therapy was one time every 2 days. Second diagnosing: After one month, the patient recounted that facial greases were decreased, and skin syndrome of acne was relieved. But her face appeared the phenomenon of light shrinkage crack desquamation on alternate days after using this traditional Chinese medicine facial mask. And we changed the basis formula of facial mask and added Hai Zao (Thallus sargassi pallidi) 10 g, Lü Dou (Semen vignae radiatae) 10 g, Yi Yi Ren (Semen coicis) 10 g, and Gan Cao (Radix glycyrrhizae) 10 g, to make up facial mask and apply it one time every 2 days. Third diagnosing: In 2009 June, the patient’s facial acne was getting better, just only remained two or three red papulæ like sesamum indicum on face, and had no more light shrinkage crack desquamation on alternate days. So we exhorted her to use this Chinese herbs facial mask with one or two times every week, and the formula can be repeated use if acne sprouted more again. Up to now, the patient’s facial acne didn’t recur.

Comment: This patient’s facial acne was evoked chiefly by dry and tense working environment. It seems that the therapeutical action of Bai Zhi and Bai Fu Zi could not achieve an ideal degree, the desquamation phenomenon existed. So, at the second diagnosing, we added several kinds of Chinese materia medica fine powder such as Hai Zao, Lü Dou, Yi Yi Ren etc. as antiinflammatory and antibacterial to raise the curative effect. Hai Zao can soften hard mass and subside swelling to eliminate inflammation. Lü Dou can clear heat-toxicity to antisepticize and induce diuresis for removing skin edema. Yi Yi Ren can remove heat to eliminate pura, moisten skin and remove ecchymoses. Gan Cao can neutralize toxin, antagonize inflammation, allergy and oxidation, accelerate skin absorbing drugs to increase efficiency, and be used for sunscreen, whitening, regulation, alleviating itching, etc., which suits for hypersensibility skin and chapped skin [11,12]. Six Chinese drugs were used together, and
brought into full play in clearing heat and eliminating dampness, resolving hard mass and removing toxicity. Therefore, at the third diagnosing, the acne was nearly healed; just need nurse one or two times every week to avoid the acne sprout.

Case 2: A male patient whose surname Lei, aged 32, was newly diagnosed in March 2010. The patient’s face had overgrown with purulence acne since college times. During the many times’ western medical therapy, he also went to professional beauty parlor to treat, but the effect was not obvious. In addition to malpractice for long-term, it resulted in lots of unsmooth scars on his face. Examination: The face was covered with a great quantity of big or small sebaceous cysts, which contained bloody ropy pus and dark red nodus that were located under the skin or small sebaceous cysts, which contained bloody ropy pus. To June 2011, the patient’s acne became better and he still used these methods to treat.

Comment: The patient’s acne was sprouted severely and the scars were left obviously because of improper diet, eating certain dishes only, and non-clearing and treating face properly. At the first diagnosing, we used drugs by subsiding swelling, removing dampness, discharging of pus, and removing blood stasis to eliminate facial cysts, and used Bai Zhi and Gan Cao that contained whitening ingredients to repair the acne scars that without fixed cavity. Bai Zhi and Zhao Jiao Ci can reduce swelling and discharge pus, and ameliorate syndrome of accumulated heat in blood and syndrome of qi stagnation and blood stasis. Bai Fu Zi can remove toxicity and resolve mass, dispell pathogenic wind and relieve pain, especially for face disease. San Leng can drastically remove blood stasis and resolve static blood and mass, relieve pain. Xia Ku Cao can clear heat-fire and resolve mass for detumescence [11,12]. Desaturated distilled vinegar can activate blood flow and remove blood stasis, relieve swelling and pain, and can also remove toxicity [19]. Through the above combined drugs, the action that reducing and eliminating acne cysta facialis was outstanding. But the reason of the long-time therapy and slowly-displayed therapeutic effect mainly lied in that the patient couldn’t well arrange the time and follow medical order to treat for job factor. Then we used desaturated distilled vinegar to eliminate stasis to subdue swelling and regulate the pH value of face skin to reduce infection, so the facial mask could obtained the better effect.

Case 3: A female patient whose surname Du, aged 24, was newly diagnosed in May 2011. The patient had grown facial acne non-interruptably since fifteen years old. The comedone often attacked recurrently. And she used many kinds of face cream to nurse the face but result was still not fine. Examination: The acne distribution range was extensive such as cheeks, mouth circumference, and forehead and so on. It was manifested with hair follicle papulae whose size was like pinhead. Some of them could be extruded white stearic bolt from the top of follicular orifice, and some was felt pain. Diagnosis: Acne comedo and acne papulosa. Etiology and pathogenesis: Improperly using face cream and invaded by exogenous evil additionally, resulted in pilosebaceous orifices blockage. Some of them were infected by propionibacterium acnes and formed red inflammation papulae and inflammation damage of skin. Therapeutic principles: Removing toxicity for destroying bacterium, eliminating dampness and astringing sores. Drugs: Bai Zhi (Radix angelicae formosanae) 10 g, Bai Fu Zi (Rhizoma typhonii gigantei) 10 g, Zhi (Spina gleditsiae) 10 g, San Leng (Rhizoma sparganii) 10 g, Xing Ci (Spica prunellae vulgaris) 10 g, Gan Cao (Radix glycyrrhizae) 10 g, to make up facial mask and use one time every 2 days. Second diagnosing: In May 2010, the patient’s acne with cysta facialis was taken a favorable turn obviously. To June 2011, the patient’s acne became better and he still used these methods to treat.

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ond diagnosing: The 4th day, after applying the facial mask before retiring the facial skin to relaxation, the inflammation and sore pain was relieved. The part that could be extruded stearic bolt from follicular orifice was reduced greatly. To order her to keep treat.

Comment: The facial comedone and papulae was induced by non-cleaning or inappropriate cleaning method. So applying Chinese herbs facial mask one time in 2 or 3 days was equivalent to disposable cleaning to keep sanitary skin of face. In this formula, Bai Zhi displayed sub-siding swelling, eliminating dampness, discharging of pus, and also relieving pain. Bai Fu Zi displayed diminishing stagnation by detoxification for bacteriostasis and anti-inflammatory, and strengthening immune function. Wu Zei Gu displayed astringing sores, moistening muscle and skin, reducing maculae. Wu Zei Gu could also harmonize acid for contained calcium carbonate [12]. The distilled vinegar displayed activating blood and em-ollating corneum layer, and adjusting the facial power of hydrogen to keep physiological functions of skin. So the compatibility of four drugs can slow down facial pock mark and relieve comedone and papulae.

7. Conclusions

Traditional Chinese physician calls acne “comedone”, common name is “zit”, which is probably the most frequent chronic skin disorder, results from interplay of gonad endocrine dyscrasia and bacteria. In TCM, it is thought that heat in blood all long is the fundamental morbid cause of acne, eating and drinking without temperance and exogenous evil invading is the pathopoiesia condition, and blood stasis and phlegm accumulation can make it more serious.

To treat acne by TCM, there are so many methods, such as endotherapy, external therapy, acupuncture, and so on. To the formulae, for example, Pipa Qing Fei Decoction (Decoction of Loquat Leaf for Clearing Lung-heat) can treat acne with syndrome of accumulated heat in lung meridian [20]. Wu Wei Xiao Du Decoction plus Huanglian Jie Du Decoction (Five-ingredient Decoction to Eliminate Toxin plus Coptis Decoction for Relieving Toxicity) can treat acne with heat-toxicity syndrome [21]. Tao Hong Si Wu Decoction plus Er Chen Decoction (Four-ingredient Decoction with Peach Seed and Safflower plus Two-cured Herb Decoction) can treat acne with phlegm-dampness and blood stasis syndrome [22, 23]. Dan Zhi Xiao Yao Powder (Rumbling Powder with Tree Peony Root-bark and Common Gardenia Fruit) can treat acne with syndrome of blood-heat of Liver Meridian [24]. To external therapy, for example, doctors can decoct Ku Shen (Radix sophorae flavescentis), Bai Xian Pi (Cortex dictamni radicis), Dag Gui (Radix angelicae sinensis) and Jing Jie (Herba schizonepetae tenuifo-

REFERENCES


