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Efficacy Analysis of Xiaoyao Pill Combined with Intense Pulsed Light in the Treatment of Chloasma

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Abstract: Objective To study the therapeutic effect of Xiaoyao Pill combined with intense pulsed light on stable chloasma. Methods 80 patients with stable chloasma in Shaanxi People's Hospital from September 2018 to September 2019 were enrolled in this prospective randomized controlled study. Randomly divided into control group and observation group, 40 cases in each group. The control group was treated with APT570; The observation group was treated with APT570 combined with oral Xiaoyao Pill Concentrated Pill. Follow-up for 8 months, the therapeutic effects of the two groups were compared. Chi-square test was performed on the data. Results The effective rate of the observation group was 95%, which was higher than that of the control group by 75% ($P < 0.05$). Conclusion During the treatment of chloasma, APT570 combined with Xiaoyao Pill, a traditional Chinese medicine, can significantly improve the effective rate, reduce the recurrence rate and significantly improve the facial skin quality, which has important clinical experience value.

Keywords: Intense Pulsed Light; Xiao-Yao Pill; Chloasma

Introduction

Chloasma, also known as liver spot and butterfly spot, is a common chronic acquired and symmetrical patchy pigmentation disease, which is more common in exposed parts such as face and neck, and is mostly irregular patches of light black, brown or light brown, with clear boundaries, which are mostly found in adolescent and childbearing women, and sometimes in menopausal women or men. The etiology and pathogenesis of chloasma in modern medicine are complicated, and there is no clear conclusion. It is related to factors such as sun exposure, heavy metal cosmetics, female pregnancy, endocrine disorder, race and family inheritance^[1,2]. It is considered that this disease is marked by stagnation of qi and blood, which causes facial dullness. This is mainly due to the dysfunction of viscera, mostly due to deficiency of kidney qi, and the kidney water is not superior. Or due to stagnation of liver-qi, stagnation of liver-qi, heat from stagnation for a long time, and burn of yin-blood, facial qi-blood disharmony is caused; Or because of spleen deficiency, dampness accumulation, endogenous phlegm retention, blocking qi and blood, and not being able to be proud of the face, the color sink occurs^[4]. The disease is easy to relapse and difficult to cure, so it is often treated by multiple means in clinic. According to the pathogenesis of chloasma in Chinese and Western medicine and personal clinical experience, the author studied the clinical efficacy and adverse reactions of patients who used intense pulsed light alone and oral Xiaoyao Pill Concentrated Pill by setting up a control experiment, which is reported as follows.

1. Data and experimental methods:

1.1 General information

80 cases in our department from September 2018 to September 2019 were selected. , randomly divided into control group and observation group. There were 40 cases in each group, and the control group was aged 25 ~ 48 years, with an average of 33 years. The course of disease is 8 months. The age of observation group was 27 ~ 46 years old, with an average of 37 years old. The course of disease is 8 months. There is no significant difference in general data between the two groups ($P > 0.05$), which is comparable.

Inclusion criteria: ① Young and middle-aged women; ② All of them have been treated with various injections, freckle removing cream and chemical stripping agent, but the effect is poor; ③ Facial lesions are covered with chloasma patches of cosmetics pigmentation or dark brown ecchymosis patches of dermis; ④ It is often symmetrically distributed in the zygomatic cheek of the face, showing butterfly shape, and in severe cases, it may involve the periorbital, forehead, upper lip and nose, with obvious edges; ⑤ No subjective symptoms and general discomfort; ⑥ The depth of stain is related to season, sun exposure and endocrine factors; ⑦ Mental stress, staying up late and fatigue can aggravate skin lesions; ⑧ It may be accompanied by menstrual disorder, irregular menstruation, poor sleep and dreaminess, listlessness and forgetfulness, etc.

Exclusion criteria: chloasma, freckles, Riel's melanosis, nevus OTA, nevus fuscocaerus zygomaticus; Women suffering from chronic diseases of liver, kidney, endocrine system and female reproductive system, pregnant and lactating women; Those who have been systematically treated or used for external depigmentation within 4 weeks.

1.2 Method

Both groups were treated with the latest four-generation photon laser platform instrument produced by Feiton Company. Photonic handpiece is APT570, the treatment parameters are set at 18jm/cm, and the cooling rate is 50%. The pulse width is 12ms. Treatment once a month. Treatment for 8 consecutive times. The control group was given photon therapy alone, while the treatment group was given Lanzhou Foci Xiaoyao Pill-Concentrated Pill orally, 8 capsules (3g) at a time, three times a day. Take it orally in the morning and evening. Treatment continued for 10 months.

1.3 Observation index scoring standard.

① Scoring of lesion area: 0 is no lesion, 1 is less than 2cm², 2 is 2 ~ 4cm², and 3 is more than 4cm². ② Skin lesion color score: 0 is normal skin color, 1 is light brown, 2 is brown and 3 is dark brown.

1.4 Curative effect standard

Basic recovery: the area of the plaque has shrunk by more than 90%, and the color has basically disappeared, and the index of decline of the score is greater than or equal to 0.8 ~ 0.9. Remarkable effect: the area of the plaque is reduced by more than 60%, the color is obviously lighter, and the index of decline of the score is 0.5 ~ 0.7. Effective: The area of the plaque is reduced by more than 30%, the color is improved, and the score decline index is 0.3 ~ 0.4. Invalid: degree of reduction of plaque area. Less than 30%, the color is basically not improved, and the score decline index is less than 0.3.

1.5 Treatment results: statistical treatment

SPSS20.0 software was used to process the data, and the counting data was represented by numbers or rates. Chi-square test showed that there was statistical significance ($P < 0.05$).

The total effective rate of the observation group was 95.00%, which was higher than that of the control group (75.00%), with significant difference ($P < 0.05$).

Table 1 Comparative analysis of therapeutic effects of the two groups [n(%)](n=40)

| group | remarkable effective | effective e | invalid | Total effective |
|-------------------|----------------------|--------------|--------------|-----------------|
| observation group | 20(50.00) | 18 (45.00) | 2 (5.00) | 38 (95.00) |
| control group | 14(35.00) | 16 (40.00) | 10 (25.00) | 30 (75.00) |
| x ² | 1.279 | 0.051 | 4.804 | 4.804 |
| p | > 0.05 | > 0.05 | < 0.05 | < 0.05 |

Compared with the control group, * p < 0.05.

There were no clear adverse reactions in all cases during the treatment.

Comparison of clinical efficacy between the two groups: the effective treatment rate of the treatment group was 95%, which was higher than that of the control group by 78%, with significant difference (P<0.05).

2 Typical cases



a,b and c are before treatment; d, e and f were 8 months after treatment.

Fig. 1 Before and after treatment of chloasma (female patient, 38 years old, using intense pulsed light combined with oral Xiaoyao pill, chloasma spots were reduced, pigmentation was obviously improved, and skin quality was improved at the same time

3. Discussion

Chloasma is a common chronic refractory skin disease characterized by pigment increase, which is mostly distributed in exposed parts such as cheeks, forehead and mandible, seriously affecting the beauty of patients. The causes of chloasma formation are complicated. At present, most people think that chloasma formation is related to sunlight, hormone level and heredity. Studies have shown that melanocyte activity in chloasma lesions is enhanced and melanogenesis is promoted. Therefore, how to inhibit melanocyte activity, reduce the formation of melanocytes and accelerate the degradation of melanocytes is the therapeutic direction of clinical treatment of chloasma [3]. With the widespread development and improvement of photoelectric technology, Q-switched laser, non-peeling dot-matrix laser, intense pulsed light, etc. have been widely used in the treatment of chloasma by using their selective photothermal principle [4]. In laser therapy, it is easy to damage skin, cause severe inflammatory reaction, activate tyrosinase activity, increase anabolism and produce more pigments. The new generation of photon therapy platform can accurately penetrate the skin and be selectively absorbed by the pigment mass (melanin) in the tissue. Without damaging the normal skin tissue, the pigment mass is destroyed and decomposed, so as to achieve the purpose of safe freckle removal. Studies have shown that angiogenesis and inflammatory reaction in chloasma lesions are involved in the generation of chloasma [5]. However, some scholars believe that the mechanism of intense pulsed light therapy for chloasma is not only the production of pigment, but also the mechanism of blood vessels [6].

However, the application of photoelectric technology has temporarily improved the treatment of chloasma, but the recurrence rate is different. How to reduce recurrence is a difficult problem that we need to solve. As a means of preventing recurrence, sun protection should carry out the whole treatment process of chloasma. Traditional Chinese medicine believes that the pathogenesis of chloasma is closely related to qi stagnation and blood stasis, yin deficiency of liver and kidney, spleen deficiency and dampness excess, and deficiency of qi and blood. The treatment principle should be soothing liver, strengthening spleen, nourishing blood, promoting blood circulation and removing blood stasis. Through clinical observation and investigation, it is found that all patients with chloasma have symptoms of liver depression and qi stagnation. Moreover, some scholar in traditional Chinese medicine believe that emotional disorder, such as stagnation of liver-qi, injury of spleen by worry, injury of kidney by panic, injury of liver by rage, etc., can all cause stagnation of qi, disharmony of veins, stagnation of qi and blood stasis, and blood can not be glorified on the surface and become the primary factor of chloasma. Therefore, Xiaoyao pill is the first choice in drug selection. Xiaoyao pill has the effects of soothing liver and nourishing blood, strengthening spleen and regulating stomach. It can regulate the emotion and endocrine of patients with chloasma, improve emotion, smooth qi and blood, and balance endocrine regulation, which can effectively reduce the recurrence rate of chloasma and assist in the treatment of photon macula. Therefore, this study adopted the method of combining traditional Chinese and western medicine, and achieved good curative effect by treating both symptoms and root causes. In this study, we found that: 1. The comprehensive treatment of chloasma is often better than a simple treatment, which may be related to the complicated factors of chloasma formation; 2. The intense pulsed light combined with Xiaoyao Pill has greatly improved the facial skin quality of patients with chloasma. We consider that there may be two reasons: first, the intense pulsed light is related to stimulating skin collagen metabolism after irradiating non-focus areas; Second, the influence of combined Xiaoyao Pill on patients' mental and psychological factors.

To sum up, choosing a photoelectric therapy that is harmless to the skin can reduce the secondary pigmentation of skin damage. Combined with concentrated pills of traditional Chinese medicine, complex decoction can be removed, which is convenient for patients to take orally, with good compliance and reduced pigment recurrence. The treatment of chloasma with integrated traditional Chinese and western medicine can significantly reduce pigmentation, and the curative effect is good. It is worthy of clinical promotion.

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