A Case Study of Pigmentation and Textural Changes Associated with Needling Yin Tang

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Abstract

In this article, a case is presented in which repeated needling of the Yin Tang point over the course of 6 years was perceived to cause pigmentation and textural changes to the skin. Others have reported changes to pigmentation, but those changes were either shorter lived and associated with strong stimulation, or were associated with implanting a silver needle for several years.

1. Introduction

Changes of skin pigmentation are a common effect of aging. Nevi (moles), ephelides (freckles) and lentigines are flat brown spots, usually smaller than 5 mm in diameter [1]. Nevi usually appear in the first decade of life of a patient, and grow in size and shape over the next two decades [1]. Lentigines are common in the Caucasian population, with one study showing a greater than 50% prevalence among the population [2]. Lentigines are commonly associated with increased age, as well as solar exposure [3,4]. In contrast, ephelides are strongly correlated with constitutional factors [5]. Because nevi, lentigines, and ephelides are risk factors for melanomas [6,7], they are often monitored for changes in size, coloration, shape and concomitant expressions such as scaliness, dryness, weeping, etc. If they are homogenous, and symmetrical, they are generally benign. Treatment can consist of a variety of pharmaceuticals, laser therapy, or cryotherapy [1]. None of these have been shown to be associated with mechanical stimulation or physical trauma.

In Traditional Chinese Medicine (TCM), dark spots on the head and face are associated with blood stasis. These dark spots may be accompanied by dryness, scales, or a variety of pigmentation ranging from slightly darker than skin tone to bluish or greenish [8]. The blood stasis is in turn caused by qi deficiency, that is, the result of the aging process [8]. Treatment for this manifestation of blood stasis with an underlying qi deficiency is “boosting the qi and transforming stasis” using herbs such as Huang Qi, Cang Zhu, Chuan Xiong, and Hong Hua [8]. Blood stasis also plays a significant role in the menstrual health of women. Blood stasis can be
associated with heavy periods, painful periods, and early menopause [9]. Generally, in Chinese medicine, treatment protocols are developed according to a combination of both the disease (heavy periods, painful periods, early menopause, etc.) and the pattern identification, e.g., blood stasis. For example, heavy periods caused by blood stasis would be treated using a combination of Si Wu Tang and Shi Xiao San, or Fu Ke Zhong Zi Wan [9]. While painful periods caused by blood stasis would be treated by Tao Hong Si Wu Tang or Ge Xia Zhu Yu Tang [9]. Because the diseases are different, the treatment principles would also be different.

Serious adverse events in acupuncture treatments are rare [10,11]. These events can include death, HIV infection, arachnoid hematomas, and organ damage. However, the risk is low [10,11]. Less serious adverse events are uncommon, and include: dizziness, bruising, pain at insertion site, and tiredness [10,11]. There have been two reported cases of skin pigmentation changes from acupuncture. In one, the patient had a silver needle implanted for 10 years. From this, she developed a pigmentation change that mimicked a blue nevi [12]. The other report was a series of four cases, where patients developed pigmentation change at the needling site. Three of the four involved electroacupuncture, and the other involved repeated strong manual stimulation of the needles [13]. In three of the four cases, the skin pigmentation changes self-resolved after less than a month.

2. Case report

On December 13, 2006, treatment was started on a 43-year-old, Caucasian woman for heavy menstrual bleeding and clots. She reported being under the care of a naturopath for her “endocrine system”, and that she had no fibroids or tumors that she was aware of. She reported that her menses was heavy with bright red blood, many clots and occasional cramping. Her periods lasted for 5 days, and occurred every 28–30 days. The viscosity of her menstrual blood was neither thicker nor thinner than normal blood. Before her period, she could experience irritability, breast tenderness, and cravings for meat. She took the patent Xiao Yao Wan for 2 weeks before her period to address these symptoms. The patent was prescribed by her naturopath and enquiries were not made into the details of the medicine, such as brand, country of origin, or ingredients. Her medical history included four pregnancies, three of which were terminated with surgical abortions.

Her tongue was flat, slightly purple with red sides, and a thin moist coat. Her pulse was wiry and slightly rapid. The TCM assessment was liver qi stagnation with liver blood stasis, and stasis in the Chong Mai. The liver qi stagnation was indicated by breast tenderness, and irritability. The etiology of liver qi stagnation is generally emotional stress, which is a factor in the modern western lifestyle [9]. The blood stagnation and stagnation in the Chong Mai were indicated by the heavy flow, and the clots, and her history of repeated abortions. The etiology of the blood stasis and stagnation in the Chong Mai include qi stagnation from emotional stress and surgeries causing blood stasis [9].

The patient was treated using acupuncture and TDP lamps (Huan Qiu brand, Chongqing, China) weekly or biweekly until January 2009. She resumed treatment in June 2010, and was using acupuncture, TDP lamps, and herbs. She was again treated weekly or biweekly. Herbal treatment was with granules generally based on formulas Gui Zhi Fu Ling before the period and Si Wu Tang after the period. The patient stopped taking herbs in August 2011. During the course of her treatment, she decided to have a hormonal intrauterine device (IUD) implanted, which mostly resolved her menstrual issues. She tapered off her treatments, and for the last year was only being seen once a month, mostly for wellness treatments. At the outset of her treatment, needles were inserted to their prescribed depth according to Chinese Acupuncture and Moxibustion [14]: stainless steel Acutech (China) needles of the appropriate length were used to obtain the depth indicated. Generally 0.30 mm diameter needles were used. However, the patient demonstrated extreme sensitivity to needling, and after about a year of treatment, a protocol was developed in which the needles were tapped in enough so that they would not fall out. Even with minimal needle insertion, the patient often complained of a stinging or sharp sensation at one or more of the needling sites. Occasionally, the patient would bleed at points, including but not limited to Yin Tang. Yin Tang was used 95 times out of 98 treatments and GV20 in all the treatments. A variety of points, such as SP6, ST36, LV3 and LI4, were also used to tonify and move the blood and qi. On April 26, 2012, the patient requested that Yin Tang no longer be needled, as had happened in almost every treatment up to that date. She reported that she had discovered a dark beige, dry, scaly spot at the point, and that she thought

![Figure 1](image) A slight darkening and textural change can be seen at Yin Tang.
the discoloration was caused by needling the point Fig. 1. The discoloration was made more prominent if the patient pulled her skin apart at the lesion site. The discoloration remained unresolved 10 months after cessation of all treatment.

3. Discussion

Pigmentation changes are often correlated with cumulative solar exposure and hence age, and represent a significant risk factor for melanomas and other types of skin tumors [2–5,7]. In this case, the change was very slight. However, there was enough of a change for the patient to be concerned that it was being caused by the needling of Yin Tang. It is possible that the needling at Yin Tang caused stagnation of the qi and blood in the channels and collaterals around the point. This could be exacerbated by the patient bleeding occasionally at Yin Tang over the course of 6 years, which could cause adhesion that in turn blocked the smooth flow of qi and blood to that point [9]. Given that the patient already had qi and blood stagnation elsewhere in her body, she could have had a predisposition to qi and blood stagnation in any part of her body. Clearly, however, this color change was not the simple bruising that can be associated acutely with needling. The color is not that of bruising, and the duration was over a course of months. Given that the face is usually the most observable part of the body, particular attention should be given when needling any face points repeatedly. This holds particular consequences for practitioners who perform cosmetic acupuncture.

Another case series described pigmentation changes associated with needling and electrical stimulation [13]. However, here, the stimulation was strong and repeated throughout the treatment, increasing the risks of mechanical damage. In this case, there was no stimulation of the needle, and after the first year, the needle was inserted minimally. Further, in those cases, the pigmentation change resolved after a short time.

Another case describing blue nevi at the site of long term silver needle insertion [12] postulated that the nevi was caused by minute silver particles that had migrated from a silver handle to a stainless steel needle shaft. However, in this case, there were no silver parts of the needle.

Given that the patient reported that the color change occurred over the course of the month of April, it is also possible that it was associated with increased solar exposure. However, the patient lives in Portland, Oregon, and solar exposure at that time of year is relatively low.

Finally, this case suggests that it is possible to develop pigment changes, such as lentigines, from mechanical trauma. This is an area that warrants more investigation.

Disclosure statement

The author affirms there are no conflicts of interest and the author has no financial interest related to the material of this manuscript.

References