TREATING VITILIGO: NEW HOPES FROM AN OLD TECHNIQUE

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INTRODUCTION

Vitiligo is a cutaneous dyschromic disease characterized by primary achromic macules.

The term “vitiligo” is first mentioned in the first century by Celsus in his book “De medicina”, but Indian literature describes the disease a lot earlier (1,000-1,500 years B.C).1,2

For all these centuries, vitiligo has proved to be a challenge for the physicians through the world. As most of the diseases with unknown aetiology, it has multiple and generally unsatisfying treatments. Different etiological and pathogenic theories based on various premises have inspired multiple treatments with partial and usually ephemeral results.

This paper proposes a new alternative of treatment which impresses by simplicity, harmlessness and low cost.

MATERIAL AND METHODS

From 2004 to 2006 we have followed 42 patients with vitiligo either in evolution or in the stable phase of the disease (26 women and 16 men), with ages between 9 and 70 (average age: 36 years). Inclusion criteria were: (1) failure of at least 1 standard medical approach; (2) no therapy for at least 12 months. The preferential locations were: face, hands, thorax, lower limbs, the abdominal and lumbar area and the genital and crural area. By the time we examined them, the lesions were dating from 6 months to 27 years (average 3 years). In the same patients, we designated control patches. We asked the written consent of the patients for the maneuver and took the baseline photographs.

We performed small cauterization dots on the vitiligo lesions with the monopolar hand piece of a Wolf bipolar 2075 cautery. We adjusted the power of the device to Step “1” (5-10 W). On the contour of the lesion we spaced the dots at a distance of 1 mm, while inside the lesion we spaced the dots at 2 mm,
overlapping them whenever possible with the follicular openings. We followed the subsequent evolution of the cauterization lesions which soon became erythematous, then evolved to a central crust which in most cases left, after shedding, a small postlesional pigmentation (visible within 3-4 weeks). We controlled the patients monthly and renewed the photographic documentation. We repeated the procedure monthly until we obtained complete or almost complete pigmentation. The follow-up period was 36 months.

RESULTS

All of our cases responded, to a larger or lesser degree, to this treatment, starting from the very first month. The plaque of vitiligo had three possible evolutions:

1. Progressive covering with a pigmented veil of variable intensity – from very pale to clearly visible; (Fig. 1)

2. The apparition of “moth-eaten” areas of pigmentation at the periphery of the plaques, which advanced towards the center; (Fig. 2)

3. The apparition of new areas of pigmentation as irregular dots inside the plaques. (Fig. 3)

In all the treated patients we obtained a certain degree of pigmentation. Color matching was good and scar formation was not observed.

There were cases with practically complete pigmentation (14 patients, 30%), as well as cases with modest pigmentation (16 cases, 33.33%). (Figs. 4, 5)

As a principle, the best evolution was in the recent lesions, the facial lesions and the lesions on the superior thorax. Unlike other authors, we had a very good response rate in the periorificial locations within only a few months. The most difficult lesions proved to be those on the hands. In case of apparition of new lesions during the treatment, they obviously had a good evolution, being - of course - recent.

DISCUSSION

Classically considered as primitive, vitiligo has known to date numerous therapeutic attempts, based
Figure 4. C.C., female, 30 years; plaque of vitiligo as a component of the Sutton nevus initial aspect, after one, two and after three months (complete pigmentation).

Figure 5. H.L., female, 20 years; multiple lumbar lesions; initial aspect and after 7 months (modest pigmentation).

on one of the multiple pathogenical hypotheses: autoimmune, deficiency or total absence of melanocytes in the plaque, “sleeping” melanocytes, antioxidants deficiency, or even fantasist hypotheses, considering vitiligo due to “heat in the blood or bodily heat, invasion with exogenous wind or damp, which invade into the skin resulting in disorder of the topical qi (vital energy) and blood”.

We quote several of the most popular actual treatments:

- Exposure to intense UV light, such as narrow-band UVB or PUVA, a therapy which is not very satisfactory except for small patches; while some people respond well, the majority attain only partial pigmentation and are not happy with the results.

- Lasers: lasers such as the 308 nm xenon chloride excimer laser have been used to treat vitiligo with varying success. Besides being expensive and not quite painless, they produce repigmentation to variable extent.

- Oral antioxidants have inconstant benefits and are mostly used as an adjunct to other therapies.

- Topical medication: topical agents, e.g. steroids, 5% polyphenone, N-acetylg glucosamine and niacinamide, calcipotriol, pimecrolimus and tacrolimus produce modest responses and complete re-pigmentation rarely occurs.

- Other treatments are targeted directly towards the lesional skin: i) cutaneous grafts from the healthy to the lesional skin - blister transplantation (they are usually associated with uneven pigmentation, while the donor area remains more or less depigmented), and ii) grafts with cultured melanocytes (for the moment they are just in the experimental phase and also very expensive).

Our research joins the treatment assays of this disease, being based on an original procedure inspired by the dynamics of healing of postcaustical lesions with residual hyperpigmentation. We assumed that a minimal burn, insufficient to develop a scar, might nevertheless activate the repairing processes which would enhance in the same time the melanocyte proliferation.

CONCLUSION

There are many treatment modalities in vitiligo, none is 100% efficient. The presented therapy could be another option, being at least as comfortable for the patient as other existing options.

Though we did not yet obtain a total and uniform repigmentation, our technique leads to undoubtedly positive results. Nevertheless, we realize that for the moment our research is only at the beginning and the results of our treatment still need to be improved in order to reach the so much desired “restitutio ad integrum”.

For the future, we intend to improve our technique by varying the intervals of the procedure and the current intensity and possibly by association with other therapeutic means, such as: local and general treatment with antioxidants, phototherapy, pimecrolimus.
REFERENCES