

Depigmentation therapy for generalized vitiligo with topical 88% phenol solution*

*Terapia despigmentante para vitiligo generalizado com solução tópica de fenol 88%**

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Abstract: Authors relate a case of generalized vitiligo with residual normochromic patches successfully treated with 88% solution of phenol.

Keywords: Phenol; Vitiligo; Vitiligo/therapy

Resumo: Os autores relatam um caso de vitiligo generalizado com áreas normocrômicas residuais tratadas com sucesso com solução de fenol 88%.

Palavras-chave: Fenol; Vitiligo; Vitiligo/terapia

Sixty-two year-old female with generalized vitiligo, with residual normochromic patches in the anterior cervical region (Figure 1), stable for over eight years. Owing to the generalized affection, nearly universal, repigmentation options were not considered. A depigmentation therapy with topic aqueous 88% phenol solution was proposed. Before the application, skin was intensely hygienized with gauzes soaked with alcohol. The solution was applied with a swab in a single application, with the observation of formation of cutaneous frosting. After two sessions, 45 days apart, there was total elimination of residual pigmented areas (Figure 1).

Vitiligo is an acquired pigment disturbance which affects the melanocyte, a dendritic cell producing melanin pigment and which is derived from the neural crest. In the skin, it is located at the basal layer and follicular sheath.^{1,2} Depigmentation therapy is indicated for generalized vitiligo, particularly in instances in which repigmentation therapy failed. American specialized literature highlights the use of cream of monobenzyl ether of hydroquinone at 20% as the drug of choice for depigmentation.¹ Even though it is often efficacious, repigmentation and

adverse effects are common (confetti-like dischromia).^{3,4} In Brazil, however, this drug is not available. As such, and based on the pharmacological/biological principles of phenol compounds, the authors have introduced in their clinical practice the use of 88% phenol solution as a depigmentation therapy for generalized vitiligo.

Phenol is a well established agent used in chemical peelings. When used at the concentration of 88%, an immediate proteic coagulation is observed in the epidermis.⁵ If phenol is re-applied, depth will be greater, with the capacity of reaching upper reticular dermis.^{5,6} All phenol compounds have toxicity over melanocytes. Transient or definite hypopigmentation is a feature of phenol cauterizing, and this is due to the development of a melanocytic incapacity to normally synthesize melanin,⁷ i.e., phenol does not seem to determine melanocyte destruction, rather, it compromises its activity.

The use of a swab moistened with phenol is more proper to treat small areas. The patient feels a burning sensation for approximately 60 seconds, which returns after 10 minutes, with a smaller intensity and which lasts from minutes to hours. Following cares

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FIGURE 1: Neck. To the left, generalized vitiligo with a normal pigmentation area. To the right, eight months after topic 88% phenol

include delicate cleaning with saline, use of antibiotic ointment with steroids of mild to moderate potency and sun blocks. The use antivirals is indicated for patients with a history of herpes simplex. A non-occluded phenol application in a small area does not demand necessary cares with Baker-Gordon's phenol formula.⁵ A small area should be understood as an area extending up to 20% of face or neck area, as 88% phe-

nol rapidly coagulates epidermis, thus stopping its percutaneous penetration; on the other hand, in Baker-Gordon's formula, phenol is concentrated at 40 to 50%, which enhances its penetration and consequently its systemic absorption.⁵

The goal of this correspondence was to bring a case to exemplify the authors' experience in phenol depigmentation therapy for vitiligo. In this case, the proposal to use phenol was made with the purpose of determining hypopigmentation in residual pigmented areas. Since the neck has a low follicular density, only two cauterizing sessions were needed for complete success. About one year and a half after the therapy there were no signs of repigmentation. Eighty-eight percent phenol can be considered as a therapeutical option for generalized vitiligo in order to eliminate residual normally pigmented areas. It is a cheap, practical product, normally with no complications in experienced hands. Possible complications are inesthetical scars formation, dischromias and development of herpetic eczema. It is important to highlight that, even after depigmentation is totally accomplished, there is a risk of pigmentation returning, mainly in those patients who do not protect themselves properly from ultraviolet radiation. However, there are no contraindications for therapeutical reuse. □

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