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A NEW METHOD FOR TREATING VITILIGO USING TRADITIONAL MEDICINE

Askarov Ibrahimjon Rakhmonovich
Doctor of Chemical Sciences, Professor of the Department of Chemistry, Honored Inventor of the Republic of Uzbekistan, Chairman of the "TABOBAT" Medical Academy of Uzbekistan.
E-mail: tabobat_akademiya@mail.ru
Pakirdinov Adhamjon Begishevich
Andijan State Medical Institute, Professor of the Department of dermatovenerology
Adham888777@gmail. com
Toshpolatov Bekmirza Kholmirzaevich
Andijan State Medical Institute, assistant at the department of dermatovenereology
E-mail: dr.beko@mail.ru

ABSTRACT: As the number of people suffering from vitiligo increases, the methods and types of treatments for the disease also increase. Prevention, elimination of causes and treatment of diseases are the priorities of medicine. The article provides brief information about the importance of ointment prepared with the addition of St. John's wort and garlic in medicine, especially in the treatment of vitiligo.

KEY WORDS: Hypericum, hypericin , vitiligo, garlic bulbs.

INTRODUCTION

Vitiligo is a chronic skin disease in which clearly defined milky-white depigmented or hypochromic spots appear on different parts of the body, and hair becomes discolored. Hypochromia occurs spontaneously, without the participation of inflammatory reactions, and manifests itself in the form of complete congenital acromia - albinism or acquired form - vitiligo.
The average incidence of the disease is 0.5-1% of the entire population [6, p. 473]. This disease occurs in China (0.093%)[6, p. 491], Nordic countries (Denmark - 0.38%)[12, p. 47] and often in some states of India (8.8%) [8, p. 47].
The etiology of vitiligo is unknown. The genetic factor is of particular importance in the pathogenesis of the disease, because the autosomal recessive type of inheritance has been determined due to the absence of the enzyme tyrosinase, which catalyzes the process of pigment formation in melanocytes and melanosomes. In patients with vitiligo, pluriglandular endocrine diseases are detected with increased functional insufficiency of the pituitary-adrenal system and thyroid gland.
Today, there are many modern methods of treating vitiligo, we will list some of them: - Systemic therapy; - Local therapy; - Photo and laser therapy; - Surgical method; - Camouflage; - Method of folk medicine;
Medicinal plants from different regions are used in various ways in herbal medicine. As an example: the effectiveness of an ointment made from a field flower Hypericum in the treatment of vitiligo has been shown in our research.
St. John's wort contains the substance "Imanin" used in modern medicine, it is an antibacterial drug in the form of a powder. A 1% solution of imanin is used to treat infected wounds, skin cracks, burns, mastitis, boils, phlegmon, acute rhinitis, laryngitis, sinusitis, purulent otitis media.
St. John's wort contains flavonoids (hyperoside, rutin, quercetin, quercitrin, isoquercitrin), essential oils containing terpenes, sesquiterpenes (azulene), naphthodianthrones (hypericin, pseudohypericin, hyperin or hypericin, close to hematoporphyrin, sensitive to sunlight; this is a

catalyst for some intracellular reactions, a regulator of vital processes, affects biochemical processes in patients with tumor diseases of organs, increases skin sensitivity to ultraviolet rays)[7, p. 403].

In traditional oriental medicine, garlic is considered a food that improves metabolism and stimulates the digestion process. In folk medicine, there are many recipes for preparing garlic-based masks, but in order to avoid burns and allergic reactions, it is advisable to use them only after consulting a dermatologist.

The properties of St. John's wort to increase skin sensitivity to ultraviolet rays (due to the hypericin contained in St. John's wort) and the property of garlic to improve skin regeneration are useful in the treatment of vitiligo.

The purpose of the study determination of the effectiveness of vitiligo treatment with ointment prepared with the addition of St. John's wort and garlic bulbs.

METHODS

The study involved 21 patients diagnosed with vitiligo, comprising 15 individuals undergoing treatment at the Andijan Regional Dermatological Hospital (10 children aged 8 to 15 years and 5 individuals over 30 years old), and 6 patients (including 4 individuals over 8 years old) receiving outpatient treatment at the department located in the hospital building. Among the patients, 14 were women and 7 were men. The diagnosis of vitiligo was confirmed following a comprehensive collection of medical history, laboratory tests, and special examinations (using a Wood's lamp). The study specifically focused on a simple type of vitiligo characterized by numerous scattered white spots."

To create the finalized ointment, a mixture of St. John's wort powder, garlic bulb powder, and lanolin, serving as the ointment's base, was prepared. Each gram of ointment contains 30 percent powder of St. John's wort flowers and garlic bulbs. Application instructions recommend applying the prepared ointment to the affected area twice daily for a duration of 3 months. The study assessed the dermatological condition of patients before and after treatment using the VASI method, a validated technique for evaluating the stage and severity of depigmented areas in vitiligo.

RESULTS AND DISCUSSION

More recently, various Hypericum formulations have been developed as gels, ointments, creams, lotions, sprays, and bath oils which may provide easier handling and higher stability than oils. Some were clinically tested and eventually marketed. However, declarations of marketed products are incomplete because they are not registered medical products, and relevant information about the composition, content of active components, and stability of investigational products is only given in a few publications. Kacerovsa et al. [16] investigated the efficacy of SJW extract in photodynamic therapy (PDT) of nonmelanoma skin cancer with a viscous formulation consisting of 36% glycerol, 17% water, and 47% dry material of an ethanolic extract from dried material. The relevant compounds absorbing light at the wavelengths of the light source used were quantified in the final product as 0.15– 0.25% hypericin and pseudohypericin in a ratio of 1:2. According to the authors, the hypericins were stable under light protection at room temperature over 12 months. Tardivo et al. [17] used a 10% extract solution in ethylene glycol with 1% hypericin and 0.5% chlorophyll for phototreatment of herpes simplex. A lipophilic ointment with only 0.003% hypericin and 0.0024% hyperforin was able to protect human skin from solar-induced inflammation [18]. Extraction with liquid CO2 has been used to obtain very high (up to 30%) concentrations of hyperforin; a cream containing an extract free of hypericin and flavonoids, but rich in hyperforin (1.5% in the final product) was used by Schempp et al.[19] for the treatment of atopic dermatitis[20].

K. M. Schempp, R Lüdtke, B Winghofer, J. C. Simon achieved this result in their experiments: To date, there are no reports of the photosensitizing ability of topical application of St. John's wort. Here we investigated the effect of St. John's wort oil (hypericin 110 µg/ml) and St. John's wort ointment (hypericin 30 µg/ml) on skin sensitivity to simulated solar radiation. The results do not indicate significant phototoxic potential of St. John's wort oil and St. John's wort ointment, as measured by a clinically significant visual erythema scale. However, the tendency toward increased photosensitivity observed with more sensitive photometric measurements may become relevant in light-skinned people, with damaged skin, or after prolonged sun exposure[21].

No allergic reactions or side effects were observed during treatment.

Throughout the treatment, remission was observed in 6 patients (4 women, 2 men), while significant improvement was noted in 11 patients (7 women, 4 men). Additionally, improvement was seen in 2 patients (2 women), while no changes were observed in 2 patients (1 woman, 1 man). The initial image depicts the disease's condition before and after treatment (Picture 1).

picture 1 Vitiligo on the eyelids of an eight-year-old girl (with the kind consent of, B. Toshpulatov, ass.). Before and after treatment

CONCLUSION

The study results indicate that clinical remission was attained in 28% of patients, while 52% showed significant improvement. Additionally, 10% of patients experienced improvement, and another 10% showed no changes. These findings suggest that the developed method holds promise for treating vitiligo effectively and potentially preventing relapses.

Fig. 2. Vitiligo on the eyelids. (A) Before and (B) after treatment (photo by Bekmirza Toshpolatov)

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