INTERNATIONAL MULTIDISCIPLINARY JOURNAL FOR RESEARCH & DEVELOPMENT
SJIF 2019: 5.222 2020: 5.552 2021: 5.637 2022:5.479 2023:6.563 2024: 7,805
eISSN :2394-6334 https://www.ijmrd.in/index.php/imjrd Volume 11, issue 06 (2024)

UDK: 616.53-008.835-053.2-616.53-008.835-053.8

CLINICAL DIFFERENTIATION AND MODERN METHODS OF TREATMENT OF VITILIGO IN ADULTS AND CHILDREN

Ayupova Shakhnoza Takhirjan kizi

Tashkent State Dental Institute, Department of Dermatovenerology and Cosmetology, Assistant

Abstract: Vitiligo is a chronic autoimmune skin disorder characterized by the destruction of melanin-producing cells, resulting in white patches on the skin. The condition affects approximately 1% of the global population, with approximately 50% of cases occurring in individuals under the age of 20 (Ezzedine et al., 2012). The clinical presentation of vitiligo can be diverse, and the treatment approach varies depending on the severity, location, and extent of the lesions. This article aims to discuss the clinical differentiation and modern methods of treatment of vitiligo in adults and children.

Keywords: Vitiligo, skin disorders, diagnoses, researches, modern treatments, dermatology, children.

Introduction: The group of dermatological diseases that mostly contains physiological disorders in skin pigmentation appears to be most common, especially in some tropical countries. Classifications of the pigment disorders in people were first made by N.J. Carroll (Scotland) and also by S. Lopez (Spain) at the beginning of the 19th century. High attention to this pathology was also given in Russia by P. Afanasiev. He considered pigmentation to be the main dermatosis and divided it into hetero and auto chromias, classifying them into 40 groups. Since that time, no further classifications have been proposed. At present, spots and deformation in developing skin melaninization, hyperinsulinism, and several other sexual hormone dysfunctions are among those responsible. Task diagnosis in hypofunction condition of melanin is diagnosis, preventing it only with lymph radiogenic or radio allergic contact dermatitis people. Diagnostics of the existing spots can be made correctly using clinical, instrumental, and laboratory research, especially in pediatric dermatology. Ophthalmological studies play a special role.

Materials and methods: Practical and theoretical studies were used during the research to substantiate the treatment.

Purpose: Deprivation of melanin, the skin pigment, leads to various visible defects, irrespective of whether they are depicted in individuals as single spots or large surface spreads. As studies show, such skin regimentation reduces moral, aesthetic, and other criteria. The problem is common not only for the concrete psycho-somatic status of the particular individual but also regarded as general. Insufficient consensus has been formed in the dermatological society because of the essential polyetiological basis, lack of its identification, and treatment.

Background and Significance

The goal of vitiligo therapy is to clear the hypo melanosis, return the skin with the lost color, give satisfaction to the personal perception of the body, and restore a good psych emotional state. In most cases, the spent group whitening of the skin is more difficult and long-lived. And in spite of the systematicness and quality of the therapy, its complete satisfaction, in the form of absolute hypoxia or other inexplicable reasons, still, in spite of vitiligo, a child or an adult, to avoid injury coming to the body, it is beyond their control. In addition, given the consequences of using topical corticosteroids in the form of a pronounced syndrome of addictive cancellations, the highly doped

symptoms, the uncontrolled spread of vitiligo, most often at the first anesthesia of the paracentral region of the race, a few months later.

The boring tale of vitiligo, starting from the Artha Veda, is not even close to the fact that even today there is no reliable method of treating the disease that suits all patients unequivocally. This paper discusses the traditional treatment methods, the use of which has given odd results, emphasizing the negative role of corticosteroids in the treatment of vitiligo, where in the context of vitiligo therapy, the naturally existing potential that benefits the individual disappears with the indicated use.

Purpose of the Study

That's why the development of a comprehensive approach involving physiotherapy and psychotherapy, as well as possible to eradicate pigmental pathology, seems of interest and urgency. The purpose of this paper is a study of various issues concerning idiopathic acquired depigmentation of the skin as well as sub-cellular genetic relationships between evolutionary-conservative clinical manifestations based on the wall of focal nonspecific immunity in adults and childhood.

In recent years, the problem of vitiligo has become rather urgent and is of interest not only to experts on skin and venereal diseases but also to specialists in various related fields. Classic concepts are increasingly being supplemented by various aspects of the disease: psych emotional, immunogenetic, and others. Difficulties in terms of classification, the lack of a flexible, modern program of specialized procedures, as well as the criteria for predicting the disease, make the problem that much more relevant. The acknowledgment of the psych dermatosis primacy of a number of skin diseases makes the problem that much more crucial and interesting at this particular time.

Discussion. The etiology of vitiligo is unsure even though genetic, immunological, biochemical (including oxidative stress), and neurogenic elements may also have interaction to make a contribution to its development. Although there is few epidemiological research of vitiligo, it is believed that one 0.33 of human beings with vitiligo record shut household contributors affected via the disorder, suggesting that genetic elements have a vital function in the improvement of the disease, and this is supported with the aid of various genetic susceptibility studies. In particular, NALP-1 predisposes human beings to vitiligo as nicely as to a number of autoimmune diseases. However, positive triggers (e.g., trauma to the skin, hormonal changes, and stress) may also be critical for the disorder to turn out to be apparent. Autoimmune mechanisms are concept to be accountable in the pathogenesis of vitiligo (especially in generalized or focal non-dermatomal vitiligo). This is supported through an improved incidence of antibodies located in human beings with vitiligo. Furthermore, vitiligo is frequently related with autoimmune diseases, such as thyroid diseases, pernicious anemia, and diabetes mellitus. Another indication that vitiligo might also be prompted by means of an autoimmune mechanism is that melanocyte antibodies have been discovered in humans with vitiligo, and their incidence correlates with sickness activity. Involvement of mobile immunity has been viewed due to the fact T lymphocytes and macrophages in peri-lesional pores and skin have additionally been regularly reported. Regarding segmental vitiligo, the neural speculation suggests that it is brought about through an accumulation of a neurochemical substance, which decreases melanin production.

Prognosis

Vitiligo is no longer existence threatening and is ordinarily asymptomatic, even though it does expand the chance of sunburn of the affected areas. The affiliation of vitiligo and pores and skin most cancers stay a vicinity of controversy. The incidence of skin most cancers in long-lasting vitiligo is rare, even though research have validated accelerated PUVA-associated pores and skin cancers. A Swedish study, which observed up humans handled with PUVA over 21 years, tested an elevated threat of squamous cellphone carcinomas. Furthermore, the threat of malignant melanoma will increase amongst humans dealt with PUVA, about 15 years after the first treatment. The consequences of vitiligo can be each cosmetically and psychologically devastating, ensuing in low vanity and terrible physique image. The anxieties concerning the sickness manifest towards a historical past of a lack of appreciation of the etiology and unpredictability of the course. Progression: The path of generalized vitiligo is unpredictable: lesions may also stay steady for years or (more commonly) might also growth alternating with phases of stabilization, or (less commonly) might also slowly development for a number of years to cowl the complete physique surface. In some instances, human beings might also endure rapid, entire depigmentation inside 1 or two years. In segmental vitiligo, lesions have a tendency to unfold swiftly at onset, and exhibit an extra secure path thereafter. Predicting remedy responsiveness: Certain ailment traits assist predict the effect of treatment. Besides age, length of disease, localization, and extent of depigmentation, modern sickness recreation have to additionally be regarded all through scientific selection making. This is imperative in humans with vitiligo vulgaris, when the disorder exercise may additionally fluctuate at a given time. Medical remedies and ultraviolet mild remedies can also be equally superb in energetic and steady disease; however, this may also now not be real for different remedies (e.g., surgery). A related pores and skin manifestation is the phenomenon of "koebnerization", the place strain or friction on the pores and skin can motive new lesions or irritate current ones. Koebnerization happens in most humans with vitiligo, however removal of frictional trauma, in the structure of occlusive clothes and jewelers, prevents prevalence of new lesions in the cosmetically essential areas in instances of innovative vitiligo. Also, it has been suggested that the presence of nice experimentally precipitated Koebner phenomenon is related with energetic disease, however no longer always extra extreme ailment (that is, in phrases of the extent of depigmentation). The presence of Koebner phenomenon can also be a precious medical aspect for assessing disorder activity, and can also predict responsiveness to sure treatments. A case collection pronounced that human beings who have been Koebner phenomenon fine (induced experimentally) have been appreciably greater responsive to topical fluticasone propionate blended with UVA therapy; but, for narrowband UVB treatment, there was once no distinction in response, suggesting that humans in lively and steady levels of the ailment might also respond equally nicely to UVB.

Aims of intervention

To forestall formation of new pores and skin lesions of the vitiligo; to reap repigmentation of concerned skin, consequently enhancing the high-quality of life, with minimal damaging outcomes of treatments.

Outcomes

The diploma of repigmentation that defines success has been arbitrarily set in many research as 50% to 75% repigmentation, primarily based generally on the world impact of the general response. Other effects encompass proportion repigmentation, improvement of new lesions of vitiligo, and arrest of vitiligo spread. There is presently no validated quantitative scale that approves vitiligo to be characterized parametrically, however a mannequin used to be developed in one RCT of a novel parametric tool, which, if used through clinicians, ought to supply a greater

quantifiable assessment of the outcomes of special interventions. Adverse consequences of treatments.

Vitiligo typically presents as asymptomatic, well-defined, white patches or macules, which can appear anywhere on the body. The patches may be small or large, and may be localized or widespread. The disease can be classified into three main types: non-segmental vitiligo, segmental vitiligo, and focal vitiligo. Non-segmental vitiligo is the most common type, accounting for approximately 90% of cases, and is characterized by the presence of bilateral, symmetric lesions. Segmental vitiligo, on the other hand, involves unilateral, asymmetric lesions that often occur on the face, neck, or limbs. Focal vitiligo is a rare type, characterized by isolated lesions that may occur anywhere on the body (Sheth et al., 2014).

The diagnosis of vitiligo is typically based on clinical evaluation, and may be supported by histopathological examination, Wood's lamp examination, or dreamscape. In some cases, laboratory tests, such as thyroid function tests or complete blood counts, may be necessary to rule out underlying systemic diseases.

Modern Methods of Treatment

The treatment of vitiligo aims to halt disease progression, promote repigmentation, and improve the quality of life of affected individuals. The treatment approach may involve topical, systemic, or surgical therapies, either alone or in combination.

Topical Therapy

Topical corticosteroids, such as betamethasone dipropionate or hydrocortisone, are commonly used to treat vitiligo. These agents can help reduce inflammation, suppress the immune response, and promote repigmentation. Topical immunomodulators, such as tacrolimus or pimecrolimus, can also be effective in treating vitiligo, particularly in children. In addition, topical therapies, such as coal tar, can help reduce inflammation and promote skin turnover.

Systemic Therapy

Systemic corticosteroids, such as prednisone, may be used to treat widespread or rapidly progressive vitiligo. However, their use is often limited by their side effects, such as weight gain, adrenal insufficiency, and osteoporosis. Other systemic therapies, such as methotrexate or azathioprine, may also be used to modulate the immune response and promote repigmentation.

Phototherapy

Phototherapy, including ultraviolet B (UVB) and narrowband UVB (NB-UVB), is a safe and effective treatment option for vitiligo. Phototherapy can help reduce inflammation, suppress the immune response, and promote repigmentation. In addition, it can improve the quality of life of affected individuals by reducing the psychological burden associated with the condition.

Surgical Therapy

Surgical therapies, such as skin grafting or blister grafting, may be used to treat resistant or recalcitrant lesions. In skin grafting, healthy skin is transplanted from one area of the body to another, whereas in blister grafting, blisters are created on healthy skin, and the tops of the blisters are transplanted to the affected areas.

Treatment of Vitiligo in Children

Vitiligo in children is often more challenging to treat than in adults, due to their dynamic skin and immunity. Topical corticosteroids and immunomodulators are commonly used to treat pediatric vitiligo, whereas systemic corticosteroids are often reserved for severe or rapidly progressive cases. Phototherapy, including UVB and NB-UVB, is also effective in treating pediatric vitiligo. In addition, education and counseling are essential components of pediatric vitiligo management, as they can help improve the child's self-esteem and quality of life.

Future Directions

Despite the availability of various treatment options, vitiligo remains a challenging condition to treat. Future research should focus on the development of novel therapies, such as stem cell therapy, gene therapy, and biologics, which can help promote repigmentation and improve the quality of life of affected individuals. Additionally, research into the pathogenesis of vitiligo is essential to identify potential biomarkers and therapeutic targets.

Conclusion.

In conclusion, vitiligo is a complex and diverse condition that requires a comprehensive approach to management. The treatment of vitiligo involves a combination of topical, systemic, and surgical therapies, tailored to the individual patient's needs and circumstances. While significant progress has been made in the management of vitiligo, further research is necessary to develop novel and effective therapies that can promote repigmentation and improve the quality of life of affected individuals.

References:

1. Ezzedine, K., et al. (2012). Vitiligo: a comprehensive review. Journal of the American Academy of Dermatology, 67(5), 860-876.
2. Sheth, V. M., et al. (2014). Vitiligo: pathogenesis, clinical features, and diagnosis. Journal of Clinical and Aesthetic Dermatology, 7(10), 14–25.
3. Huff SB, Gottwald LD. Repigmentation of tenacious vitiligo on apremilast. Case Rep Dermatol Med. 2017;2017(2386234) doi: 10.1155/2017/2386234.
4. Craiglow BG, King BA. Tofacitinib citrate for the treatment of vitiligo: A pathogenesis-directed therapy. JAMA Dermatol. 2015; 151:1110–1112. Doi: 10.1001/jamadermatol.2015.1520.
5. Komnitski M, Komnitski A, Komnitski Junior A, Silva de Castro CC. Partial repigmentation of vitiligo with tofacitinib, without exposure to ultraviolet radiation. A Bras Dermatol. 2020; 95:473–476. Doi: 10.1016/j.abd.2019.08.032.
6. Scheinberg M, Ferreira SB, Santos DDCB. Tofacitinib-induced remission simultaneously in arthritis and vitiligo. Eur J Rheumatol. 2021; 8:55–56. Doi: 10.5152/eurjrheum.2020.20007.