MODERN APPROACHES TO THE TREATMENT OF STABLE NON-SEGMENTAL VITILIGO: THE ROLE OF FLUOROURACIL IN COMBINATION THERAPY

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Vitiligo is a chronic skin disease characterized by depigmentation resulting from the destruction of melanocytes. One promising therapeutic approach is the use of fluorouracil, an antimetabolite with immunomodulatory and cytotoxic properties. The aim of this study is to evaluate the effectiveness of different fluorouracil treatment regimens in stable non-segmental vitiligo. Vitiligo affects approximately 1% of the population, and its etiology remains unclear, involving autoimmune, genetic, and external factors. Fluorouracil is traditionally used in oncology, but its ability to induce repigmentation makes it a potential candidate for the treatment of vitiligo. The aim of this study is to compare the effectiveness of different fluorouracil treatment regimens in patients with stable non-segmental vitiligo.

Materials and methods: The study included 30 patients diagnosed with stable non-segmental vitiligo, divided into three groups of 10 patients each:

- Group 1: intradermal injection of 5% fluorouracil.
- Group 2: fluorouracil combined with microneedling.
- Group 3: combination therapy with fluorouracil, microneedling, and narrowband UV therapy (NB-UVB, 311 nm).

Evaluation criteria included lesion area, degree of repigmentation (scored), patient satisfaction, and the frequency of side effects. Assessments were performed at weeks 4, 8, and 12 of therapy.

Results: In Group 1, repigmentation was observed in 40% of patients, with a mean reduction in lesion area of 15%. In Group 2, the effect was more pronounced: repigmentation was observed in 55% of patients, and the lesion area decreased by 25%. Group 3 achieved the best results: repigmentation was observed in 75% of patients, and the lesion area decreased by 40%. The frequency of side effects (erythema, itching, burning) was moderate and did not exceed 20% in any group.

Conclusion: Fluorouracil has potential effectiveness in the treatment of stable non-segmental vitiligo, especially when combined with microneedling and NB-UVB radiation. Further research is needed to optimize treatment regimens and minimize side effects.