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Re-evaluating Hematologic Monitoring in Lichen Planopilaris and Frontal Fibrosing Alopecia Patients Treated with Hydroxychloroquine: A Retrospective Analysis

Hydroxychloroquine (HCQ) is an antimalarial medication commonly used to treat rheumatoid arthritis (RA), systemic lupus erythematosus (SLE), and discoid lupus erythematosus (DLE). Its immunomodulatory properties support its use as a single agent and its role in combination therapy for autoimmune-related hair loss disorders such as lichen planopilaris (LPP) and frontal fibrosing alopecia (FFA), which are more common in postmenopausal women.[1-2] FFA, a clinical variant of LPP, is characterized by progressive scarring hair loss along the frontotemporal hairline, often accompanied by eyebrow loss. Variable laboratory monitoring and a lack of standardized follow-up guidelines contribute to inconsistent management.[3] Current monitoring guidelines for LPP and FFA recommend baseline laboratory testing, including liver function tests, complete blood count (CBC), and an ophthalmologic exam prior to initiating therapy. No dermatology-specific guidelines exist for HCQ monitoring. This raises the question: should the laboratory monitoring protocols of HCQ for rheumatologic diseases be applied to LPP and FFA management? This retrospective study utilized TriNetX to compare hematologic risks associated with two treatment regimens for LPP and FFA, aiming to address the lack of standardized laboratory monitoring guidelines for patients treated with HCQ for dermatologic conditions. Cohort 1 comprised 675 individuals with LPP/FFA treated with HCQ. Cohort 2 (control) included 675 patients with LPP/FFA treated with triamcinolone a first-line therapy. Blood values were evaluated to assess any probability for anemia. No statistically significant difference was observed in the incidence of hemoglobin values below 12 g/dL between cohorts ($p = 0.076$). The control group included 58 patients with this outcome, compared to 41 in the HCQ cohort. Hematocrit < 36% showed no statistically significant difference ($p=0.352$), with 55 patients in the control group, and 46 in the HCQ cohort. Erythrocyte count below $4.2x10^6$ /uL reported no statistically significant difference ($p=0.546$), with 79 in the control group and 72 in HCQ cohort. Analysis of the following conditions was not estimable as zero incident cases were found in either cohort: aplastic anemia due to external agents, other drug-induced pancytopenia, drug-induced autoimmune hemolytic anemia, and drug-induced aplastic anemia. In the absence of dermatology-specific guidelines, it may be reasonable to apply rheumatologic laboratory monitoring protocols to LPP and FFA patients receiving HCQ, with individualized follow-up based on comorbidities and concurrent medications.