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Assessing the Effect of Cumulative Hydroxychloroquine Dose on Lifetime Disease Damage vs Risk of Retinal Toxicity in Systemic Lupus Erythematosus Patients

Hydroxychloroquine (HCQ) is a common medication prescribed to patients who are diagnosed with Systemic Lupus Erythematosus (SLE). It has been shown to prevent disease flares and organ damage as well as increase long-term survival. However, it has been known to have toxic ocular effects, the risk of which increases with higher dosage and duration (1). Based on more stringent ophthalmologic guidelines and more sensitive modalities for detecting HCQ toxicity, many patients with SLE have stopped HCQ or been prescribed lower doses due to concerns about retinal toxicity. Additionally, a recent study found increased SLE-related damage accumulation in patients who had never used or previously used HCQ compared to those who had continuously used HCQ, suggesting that continuous HCQ use may be important for halting or slowing disease damage for SLE patients (2). The purpose of this study is to compare the benefits in terms of disease control versus the risks of retinal toxicity of HCQ in patients with SLE. We studied a prospective cohort of over 100 patients with SLE. Lifetime HCQ dose was determined retrospectively through chart review. This methodology allows for effective tracking of long-term effects of HCQ. References: 1. Hanna, B., Holdeman, N. R., Tang, R. A., & Schiffman, J. S. (2008, January 18). Retinal toxicity secondary to Plaquenil therapy. 2. Siegel, C., Grossman, J., Chen, S., Sahakian, L., Gorin, M., & McMahon, M. (2018, August 1). TD-04 Plaquenil discontinuation is associated with increased damage accumulation in SLE.