Retinopathy in Patients with Rheumatic Diseases Receiving Hydroxychloroquine

Kwok-Kei Lee and Raymond Woon-Sing Wong

Abstract: **Objective:** To study the incidence of hydroxychloroquine (HCQ)-related retinopathy and its associated factors in patients with rheumatic diseases. **Study design:** Retrospective chart review. **Results:** 472 records from a general rheumatology clinic in Queen Mary Hospital were reviewed. These included 158 patients with SLE, 237 patients with RA and 77 patients with other rheumatic diseases. Among these patients, 221 patients (47%) were current users of HCQ and 84 patients (18%) were previous users of HCQ. Eighty-four patients had HCQ permanently withdrawn (toxicity in 19 patients, stable disease in 18 patients, lack of efficacy in 23 patients and non-compliance in 24 patients). All except one HCQ withdrawal was due to retinopathy. Most cases of retinal toxicities (81%) were detected during routine ophthalmological assessment. In 4 of these 22 patients, HCQ could be subsequently resumed. There were no significant differences in daily dose, total cumulative dose, duration of HCQ usage, age or rheumatological diagnoses between patients who did or did not develop HCQ-related retinopathy. **Conclusion:** Retinopathy is the chief HCQ-related toxicity that leads to drug withdrawal. As most patients are asymptomatic during early stage, regular ophthalmological assessment is necessary to achieve timely detection of retinopathy and prevent permanent visual damage.

**Keywords:** Hydroxychloroquine, ophthalmological assessment, retinal toxicity