(1) allergy to HCQ or any identified contraindications to HCQ; (2) combined with other autoimmune diseases; (3) patients with a history of head and neck radiotherapy, hepatitis C, AIDS activity, sarcoidosis, Graves’ disease, diabetes history, combined use of anticholinergics, and other factors that may affect the diagnosis of the disease; (4) using drugs that might affect blood routine examination; (5) patients with severe organ injury or with an estimated survival period of ≤ 3 months; (6) patients need to use high-dose glucocorticoids (≥ 1 mg kg⁻¹ · d⁻¹ prednisone or equivalent doses of other glucocorticoids); (7) patients with malignant tumors; (8) patients with concurrent infections (including those with current symptoms and previous tuberculosis); (9) patients with pregnancy and lactation; (10) patients with insufficient or contaminated blood samples.

Inclusion criteria

(1) diagnosed with SLE;
(2) ages from 18 to 70 years old;
(3) need treatment with oral HCQ (dose of HCQ was no more than 5 mg kg⁻¹ · d⁻¹, the maximum daily dose was 400 mg) for more than three months;
(4) complete clinical data and relevant examination results;
(5) patients agreed to participate in the study.

Exclusion criteria

- Patients with [HCQ] < 100 ng/mL were excluded. n=25

Blood [HCQ], [DHCQ], and [DCQ] were measured.

Included Patients n=489

Determine the optimal blood concentrations of HCQ and its metabolites in the Chinese SLE population.

Investigate the effects of CYP450 gene polymorphisms on the blood concentrations of HCQ and its metabolites.