Background and aims To assess clinical manifestations, laboratory findings and outcome of a cohort of Chinese SLE patients with onset at age ≥50 from a tertiary referral centre by performing a case control study.

Methods All hospitalised SLE patients in last five years were retrospectively reviewed. Patients who developed disease at or after the age of 50 were considered as LOSLE. 1:1 matched control SLE patients, admitted in the same period with initial symptoms onset before the age of 50, paired by race and disease duration, were randomly selected. Clinical manifestations, laboratory findings, therapies as well as outcome of the two groups of patients were compared.

Results LOSLE amounts to 4.3% (35/814) of all SLE patients in our centre. The most frequent clinical manifestations of LOSLE were arthralgia (60%), fever (37.1%) and serositis (37.1%). Compared with younger onset patients, LOSLE had less incidence of rash, oral ulcers, Raynaud’s phenomenon, but had more renal involvement and secondary sjogren’s syndrome. In laboratory findings, positive anti-dsDNA, anti-Sm, anti-SSA, anti-SSB and anti-RNP antibody were less frequent in LOSLE compared with younger SLE patients. Additionally, SLEDAI was lower in LOSLE group at diagnosis and fewer LOSLE patients received cytotoxic agents. However, one-year survival rate was lower in LOSLE group than control patients (78% and 91%, respectively).

Conclusions Patients of LOSLE tend to be milder and atypical in symptoms, signs and laboratory findings, but they are prone to experience more severe renal damage and higher mortality. LOSLE appear to be a non-benign disease in our cohort of Chinese patients.