

## **CYCLOPHOSPHAMIDE THERAPY AND RISK OF OVARIAN FAILURE IN SYSTEMIC LUPUS ERYTHEMATOSUS (SLE)**

**MOK CC, LAU CS, WONG RWS. Division of Rheumatology, Department of Medicine, Queen Mary Hospital, Pokfulam, Hong Kong**

**Objectives :** To determine the incidence of ovarian failure after cyclophosphamide treatment for systemic lupus erythematosus (SLE) and identify the risk factors for this complication.

**Method :** 70 pre-menopausal SLE patients treated with CTX were retrospectively reviewed. The demographic features, autoantibodies, age at start of CTX, duration of CTX treatment and total cumulative CTX doses of the patients were recorded. Patients who developed ovarian failure after CTX treatment were identified and compared with those who did not.

**Results :** 18 patients developed ovarian failure after CTX treatment, giving rise to an overall incidence of 26%. The incidence of ovarian failure showed a linear trend with increasing age at the start of CTX (Chi square for trend,  $p=0.007$ ). The duration of CTX treatment and the cumulative CTX dose received were significantly higher in the ovarian failure group than those without (14.7 vs 9.8 months,  $p=0.07$ , 28.3 vs 15.4 grams,  $p=0.004$ , respectively). The risk of ovarian failure also showed a linear trend with increasing cumulative CTX dose (Chi square for trend,  $p < 0.001$ ). Using multiple logistic regression, the age at the time of CTX treatment ( $\beta = 0.37$ ,  $p = 0.001$ ) and the cumulative dose of CTX received ( $\beta = 0.69$ ,  $p = 0.02$ ) were found to be independent risk factors for CTX-induced ovarian failure.

**Conclusions :** In our population of SLE, CTX-induced ovarian toxicity is a significant problem, particularly in patients above the age of 40. The age at the start of CTX therapy and the cumulative dose are the major determinants for the development of this complication. For older patients with SLE who warrant the use of CTX, a shorter course and a lower dose should be considered whenever possible.

## **LATE-ONSET SYSTEMIC LUPUS ERYTHEMATOSUS (SLE) IN SOUTHERN CHINESE HO CTK, MOK CC, LAU CS, WONG RWS. Division of Rheumatology, Department of Medicine, Queen Mary Hospital, Pokfulam, Hong Kong**

**Objective:** Systemic lupus erythematosus (SLE) is a multi-systemic disorder that predominately affects women of the reproductive age. Onset of the disease beyond the age of 50 is unusual. This study was undertaken to compare retrospectively the clinical and laboratory features between early and late-onset (onset of disease beyond the age of 50) SLE patients in our Chinese population.

**Method:** 320 case records of SLE patients who attended our rheumatology clinics from 1971-1997 were reviewed. Twenty-five patients with late-onset SLE were identified. The presenting clinical features, autoantibody profile, number of major organs involved, number of relapses per year and the use of cytotoxic agents for disease control were obtained and compared with 100 control SLE patients who had a disease onset before the age of 50.

**Result:** 25 patients with late-onset SLE were identified, giving a point prevalence of 8%. The female to male ratio was 3 to 1, whereas that of the control group was 16 to 1 ( $p < 0.05$ ). Both groups had a comparable duration of the disease. All the female patients in the late-onset group were post-menopausal. There were no significant differences in the presenting features between the two groups except for a higher prevalence of positive rheumatoid factor in the late-onset patients. On subsequent visits, the late-onset group had a higher prevalence of sicca symptoms (14% vs 1%,  $p < 0.05$ , Chi-square) but a lower prevalence of malar rash (30% vs 86%,  $p < 0.001$ ), fewer major organs involved (average number of organs involved ; 0.3 vs 0.9,  $p < 0.001$ ), fewer relapses (average number of relapses per patient-year ; 0.06 vs 0.47,  $p < 0.001$ ) and required fewer cytotoxic agents for disease control ( $p < 0.04$ ).

**Conclusions:** Late-onset SLE tends to run a more benign course with fewer major organs involved and fewer relapses. The significantly higher incidence of men in late onset SLE and the milder disease in the postmenopausal patients suggests that oestrogen status may influence disease activity.