中文題目:全身性紅斑狼瘡病人增加白內障與青光眼的風險-以台灣健保資料庫英文題目:Increased risks of developing cataract and glaucoma among systemic lupus erythematosus patients – a population-based study in Taiwan.

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**Background**: Systemic lupus erythematosus (SLE) is multisystem autoimmune diseases that may affect multiple organ system, including the eye. The prevalence of ocular disorder is higher in patients with SLE compared with the controls without SLE. The aim of this study was to investigate prevalence and incidence of cataract and glaucoma among patients with systemic lupus erythematosus.

Methods: The database used from the Taiwan's National Health Insurance Research Database 2000, we identified 521 patients with newly diagnosed SLE. A comparison cohort consisting of 10 patients without SLE was selected base on frequency matching for sex, 5-year age interval, and index year. Both groups were followed until the end of the follow-up period or when the outcome of interest occurred. We used Poisson regression models to calculate the incidence rates of glaucoma and cataract.

*Results:* Initially, we identified the 521 patients in the SLE cohort and 5210 patients without SLE in the comparison cohort, respectively. The mean age for the SLE cohort and control cohort were all 41.15± 15.78. The basic characteristics of sex and age were no significant differences between the two groups. The prevalence of cataract (16.3% vs. 8.3%, P<0.001) was significantly higher in patients with SLE compared with the controls. There was no statistically significant difference in prevalence rate of glaucoma between SLE patients compared with the controls (3.8% vs. 2.6%, P=0.083). For the incident rate, patients with SLE had significantly higher risk of developing cataract (adjusted IRR = 3.18, 95% CI 2.39-4.22, p<0.001) and glaucoma (adjusted IRR = 2.23, 95% CI 1.35-3.70, p<0.001) compared with the controls, respectively.

## Conclusion:

We found a higher prevalence of cataract and glaucoma among Taiwanese with SLE, with significantly higher incidence rate ratio of developing cataract and glaucoma among patients with SLE.