3. Breast, Ovarian and Endometrial Cancer in Women Diagnosed with SLE Before Age 40.

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Objectives: Various studies have confirmed an overall increase in cancers in SLE patients. This increased incidence is largely driven by haematological malignancies, while, some female reproductive cancers have a decreased incidence in SLE patients (breast, endometrial and ovary). Although, 90% of SLE patients are female, only few studies in the past have looked female reproductive cancers. Further, no study so far has looked at the incidence of these female reproductive cancers in young females diagnosed with SLE, despite the fact that SLE is mostly diagnosed in female patients in child bearing years. Therefore, the present study looks at the incidence of breast, ovarian and uterine cancer incidence in females diagnosed with SLE prior to age 40.

Methods: Data were obtained from a multicentre international cohort study of 9547 SLE patients from 23 centres in 6 countries. SLE diagnosis was established by American College of Rheumatology Criteria or clinical criteria. Patients were followed up in outpatient clinics and/or in hospitals and cancer cases were ascertained through linkage with regional tumor registries. Information on date of birth, sex, date of diagnosis of SLE and dates of start and end of observation period of the cohort was available for all patients. Standardized incidence ratios (SIR) were calculated for breast, ovarian and uterine cancer by dividing the observed number events for a given cancer by the expected number of events of the respective cancer. Expected numbers of cancers were determined by multiplying the person years at risk in the cohort by age and sex matched cancer rates. Age specific general population cancer rates were obtained from Statistic Canada (1992-2001).

Results: 5,406 female patients under age 40 (mean age-26.8, Standard Deviation (SD) 7.4) were observed for a total of 44,073 patient-years (average follow up 8 years). The calendar period of observation ranged from 1942-2001. A total of 127 cancers were observed and, 1/4 of these cancers accounted for breast, ovarian and uterine cancer. Data confirmed a decrease in breast (SIR 0.38, 95% CI: 0.26-0.55) and uterine cancer (SIR 0.33, 95% CI: 0.07-0.96), and a trend in decrease in ovarian cancer (SIR 0.25, 95% CI: 0.01-1.41) in female patients who were diagnosed with SLE under age 40.

Conclusion: In the present cohort study, we observed a decreased risk of breast and uterine cancer in females who have developed SLE prior to age 40. Ovarian cancer incidence appeared to decrease, but the data is inconclusive due to the small sample size.