■ ♣Sat-471 ■

National Health Insurance data based analysis of malignancy in Korean Sjogren's syndrome patients

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Background/Aims: Patient with systemic autoimmune rheumatic disease, are known to have a high risk of malignancy. Among these, Sjogren's syndrome (SS) which characterized by lymphocytic infiltration of exocrine glands and caused sicca symptoms is associated with development of lymphoma. However, prevalence of SS was too low, most studies about lymphoma and malignancy were done on a small-scale. For more large-scale research about development of malignancy and mortality in SS, we analyzed these with whole Korean National Health Insurance data. **Methods:** We compared the incidence of malignancy and mortality in newly diagnosed Sjogren's syndrome patients from 2004 to 2015 with age-sex matched controls and calculated hazard ratio (HR) with multiple Cox's model. **Results:** The number of total study population including SS was 52,663. Among this, the number of SS was 8,826. Therefore the ratio of control vs. SS patient group was 4.97:1(; 43,837:8,826). Total study population's malignancy rate was 3.23%(1,699/52,663). SS's malignancy rate was 4.06%(358/8,826). The duration from diagnosis of SS to development of malignancy was 5.4year and their mean age was 52.3 years old. The risk of overall malignancy was not higher than that of the control. However, the incidence of thyroid cancer (HR; 1.75, 95%CI; 1.15~2.65) and lymphoma (HR; 4.8, 95%CI; 1.40~16.42) were higher than that of control (Table1). Total study population's mortality rate was 2.70%(1,422/52,663). SS's mortality rate was 2.93%(259/8,826). Presence of SS did not increase the mortality rate(HR;1.09, 95%CI; 0.81~1.45). However among Sjogren's syndrome, mortality rate was higher in man, elderly, low income, smoker, and malignancy group. **Conclusions:** This is one of the largest epidemiologic study about Sjogren's syndrome including 8,826 patients of Sjogren's syndrome. Sjogren's syndrome patients' overall malignancy risk was not higher than control group. However, risk of lymphoma including non-Hodgkin lymphoma were higher than control group. Mortality rate of Sjogren's syndrome was not higher than control group.

Table 1. Relative risk of various malignancy in Sjogren's syndrome

	Control	Sjogren's Sd	HR	95% CI	P-value
	1,341(3.06%)	358(4.06%)	1.21	0.97~1.52	0.10
Stomach Ca	171(0.39%)	28(0.32%)	0.85	0.42~1.76	0.67
Colon Ca	175(0.40%)	21(0.24%)	0.24	0.07~0.92	0.04
Hematoma	100(0.23%)	8(0.09%)	0.39	0.12~1.21	0.10
GB-biliary Ca	57(0.13%)	3(0.03%)	0.23	0.01~4.89	0.34
Pancreatic Ca	43(0.10%)	6(0.07%)	0.49	0.06~4.12	0.51
Lung Ca	126(0.28%)	35(0.39%)	1.33	0.62~2.85	0.46
Breast Ca	235(0.53%)	45(0.51%)	0.9	0.48~1.70	0.75
Cervix Ca	44(0.10%)	12(0.14%)	2.55	0.72~9.06	0.15
Uterine Ca	38(0.09%)	4(0.05%)	0.88	0.19~4.15	0.87
Ovarian Ca	30(0.07%)	6(0.07%)	1.1	0.22~5.47	0.91
CNS Ca	31(0.07%)	3(0.03%)	0.66	0.09~4.73	0.68
Thyroid Ca	**315(0.71%)**	**122(1.38%)**	**1.75**	**1.15~2.65**	**0.01**
Leukemia	20(0.05%)	4(0.05%)	2.11	0.21~21.67	0.53
Lymphoma	**24(0.05%)**	**31(0.35%)**	**4.8**	**1.40~16.42**	**0.01**
--NHL	**24(0.05%)**	**30(0.34%)**	**4.44**	**1.24~15.89**	**0.02**

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Observational study of the relationship between OA and coffee consumption in elderly Koreans

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Background/Aims: Coffee is one of the most consumed beverages globally. Osteoarthritis(OA), the most common musculoskeletal disease in the elderly. Coffee is associated with various diseases, but there has not yet been a study of the relationship between coffee and OA. So we performed observational study about the relationship between OA and coffee consumption in elderly Koreans. **Methods:** Data from 2012–2013 were collected from the Korea National Health and Nutrition Examination Survey. We included 2302 participants in our study: 897 men and 1405 women. Participants with OA were defined as those whose knee joints exhibited radiographic change of Kellgren-Lawrence grade 2 or higher. Daily coffee consumption amounts were categorized as none, <2 cups, 2–3 cups, 4–6 cups and ≥7 cups based on self-reporting. **Results:** The prevalence of OA was significantly higher in ≥7 cup groups than in those who didn't drink coffee(OR 3.81, 95% CI 1.46–12.45) in men. In addition, although the ORs didn't increase significantly across consumption levels, the prevalence of OA in men tended to increase as coffee consumption increased. There was no significant association between coffee consumption and OA prevalence in women. **Conclusions:** This is the first study of the relationship between coffee consumption and OA. A recent meta-analysis of the association of coffee consumption with various diseases revealed that usual levels of coffee intake were not significantly associated with diseases. In our study, the prevalence of OA was not associated with coffee consumption in women, but was statistically elevated when excessive drinking of coffee in men. Since coffee include many different ingredients, it is difficult to determine which substance affect OA. However, the antagonism to adenosine receptors of caffeine, one of the major components of coffee, may be suggested as a cause of the association of coffee with OA. In addition, previous studies have demonstrated that coffee has different effects on various diseases according to gender. Gender-dependent differences may be related to genetic, hormonal, environmental factors, and eating habits. Further research is needed on the effects of coffee on cartilage and the pathophysiology of OA.