

Award Report (국제학술지 임상 부분)

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- 1. Metabolic Syndrome and Chronic Laryngitis: The Korean National Health and Nutrition Examination Survey 2008 to 2010.**
Kim CS, Lee SS, Han KD, Joo YH.
Medicine (Baltimore). 2015 Oct;94(43):e1890.
(Impact factor : 5.723)

Metabolic syndrome (MetS) is associated with a higher risk of morbidity and/or mortality for various chronic diseases. The aim of this study was to investigate the relationship of chronic laryngitis (CL) with MetS and its components in a representative Korean population. Data from the Korean National Health and Nutrition Examination Survey (2008-2010) were analyzed. A total of 10,360 adults who had undergone otolaryngological examination were evaluated. The prevalence of CL in the study population was 3.1%. The prevalence of MetS was significantly higher in patients with CL than in those without CL for both sexes (men: $34.7 \pm 4.0\%$ versus $25.9 \pm 0.8\%$, $P=0.0235$; women: $40.6 \pm 5.3\%$ versus $23.7 \pm 0.7\%$, $P=0.0003$). Elevated fasting glucose, triglycerides, and blood pressure, however, were only significantly associated with CL in women. After controlling for confounders, CL was only significantly associated with MetS in women (odds ratio: 2.159; 95% confidence interval: 1.2974, 3.594). Furthermore, the association between CL and MetS was most robust in women who were classified as obese. In Korea, MetS and its components are significantly associated with CL in women.

- 2. Association between Chronic Laryngitis and Particulate Matter Based on the Korea National Health and Nutrition Examination Survey 2008-2012.**
Joo YH, Lee SS, Han KD, Park KH.
PLoS One. 2015 Jul 15;10(7):e0133180.
(Impact factor : 3.234)

Background: Chronic laryngitis (CL) has been described as chronic inflammation of the larynx. CL have various causes such as long-term smoking, acid reflux, voice overuse, bronchitis, allergies, pneumonia, excessive exposure to toxic chemicals and complications from the flu or a chronic cold. However, the prevalence of CL and role of air pollution in the etiology is uncertain.

Objective: The aim of this study was to investigate the relationship between CL and particulate matter with aerodynamic diameter less than $10 \mu\text{m}$ (PM10) in South Korea using data from the Korea National Health and Nutrition Examination Surveys (KNHANES) during 2008-2012.

Methods: KNHANES is a cross-sectional survey of the civilian, non-institutionalized population of South Korea ($n = 21,116$). A field survey team that included an otolaryngologist moved with a mobile examination unit and performed interviews and physical examinations. The mean annual concentrations of ambient PM10, SO₂, O₃, NO₂, and CO levels in Korea were determined from monitoring station data. Multiple logistic regression was used to examine the relationship of air pollution to CL.

Results: Among the population ≥ 19 years of age, the weighted prevalence of CL was $3.37 \pm 0.30\%$ (95% con-

fidence interval, 2.79-3.95%). CL was more prevalent in men, current smokers, and those with lower household income and prevalence increased with age. A significant decrease over time was observed in the prevalence of CL (P for trend=0.0049) and the annual average concentrations of PM10 (P for trend<0.0001) from 2008 to 2012. In a multivariate model, the factors associated with CL included PM10 (odds ratio [OR], 1.378, p=0.0457), age (OR, 1.020, p<0.0001), sex (OR, 0.734, p=0.0179), and smoking status (OR, 1.438, p=0.0054).

Conclusion: Elevated PM10 exposures could be associated with increased risk of CL in South Koreans. Further epidemiological and experimental studies are necessary to clarify the impact of chronic PM10 exposure on CL.

3. Association between Obesity and Chronic Laryngitis in Women--Data from the Korea National Health and Nutrition Examination Survey.

Joo YH, Han KD, Lee SS.

Obes Facts. 2015;8(4):252-60. (Impact factor : 2.245)

Background: This study aimed to investigate the relationship between obesity and chronic laryngitis in South

Korea using data from the Korea National Health and Nutrition Examination Surveys (KNHANES) collected during 2008-2010.

Methods: KNHANES was a cross-sectional survey of the civilian, non-institutionalized population of South Korea (n=13,819). Obesity status was measured by using BMI and waist circumference.

Results: Among the population over 19 years of age, the prevalence of chronic laryngitis was $4.0 \pm 0.4\%$. Chronic laryngitis was significantly associated with age, BMI, waist circumference, fat proportion, both systolic and diastolic blood pressure, fasting blood sugar, triglycerides, and high-density lipoprotein cholesterol in women. Old age and current smoking were significantly associated with chronic laryngitis in men. Obese women were at a higher risk for chronic laryngitis than women without obesity (odds ratio (OR) 2.022, 95% confidence interval (95% CI) 1.412-2.895) after further adjustment for confounders. Women with abdominal obesity were also at higher risk for chronic laryngitis (OR 1.475, 95% CI 1.024-2.126).

Conclusion: Obese women in Korea have an elevated risk for developing chronic laryngitis. Further epidemiological and experimental studies are necessary to clarify the impact of obesity on this condition.