

The Promising First Cohort Study in Korean Patients with Obesity and Overweight: Gangwon Obesity and Metabolic Syndrome Study

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At the 2011 United Nations High Level Meeting on Non-Communicable Diseases (NCDs), governments around the world made commitments to take action to prevent and treat NCDs and set a target to 'halt the rise in obesity at 2010 levels, by 2025'; a similar target was also set for childhood obesity.¹ According to World Obesity Atlas 2022, by 2030, it is predicted that 1 in 5 women and 1 in 7 men will be living with obesity (body mass index ≥ 30 kg/m²), equating to over 1 billion people globally; as of 2020, no country is on track to meet this target to halt the increasing prevalence of obesity.² Indeed, most countries are moving away from, rather than towards these targets, as levels of obesity continue to rise. The global failure to halt the increasing trend in obesity could be due to the fact that obesity is related to too many lifestyle factors, including diet patterns, caloric intake, exercise and socioeconomic status, making the issue too complicated to be solved by a single strategy.

According to the Obesity Fact Sheet in Korea, 2021, obesity prevalence steadily increased between 2009 and 2019 among the total Korean population from 29.7% in 2009 to 36.3% in 2019.³ The obesity prevalence has risen rapidly in individuals in their 20s and 80s compared with other age groups. Furthermore, the prevalence

of class III obesity has significantly increased nearly threefold during this period. These marked increases in obesity have resulted in an increasing prevalence of comorbidities of obesity, such as diabetes, cardiovascular diseases and cancer.

To address this global burden, randomized controlled trials that will provide strategies to improve the lifestyles of obese people and prevent comorbidities are needed. However, prospective cohort studies in people with obesity are scarce. The largest prospective cohort of people with overweight and obesity performed to date is the National Institutes of Health- American Association of Retired Persons (NIH-AARP) Diet and Health Study, which was established in 1995–1996 when 567,169 questionnaires were completed by participants in their 50s to 70s who resided in six U.S. states and two metropolitan areas.⁴ They were followed up until 2005 and the researchers found that during a maximum follow-up of 10 years, the highest and lowest categories of body mass index (BMI) exhibited increased risk of death compared to the participants in the reference groups with a BMI of 23.5 to 24.9 kg/m². In another pooled cohort analysis of three cohort studies performed in US adults, that is, the Nurses' Health Study I and II Health Professional Follow-up

Study, the maximum BMIs in the overweight and obese I and obese II categories were associated with an increase in risk of all-cause mortality; however, overweight defined by a single baseline measurement of BMI showed an inverse correlation with mortality.⁵

In Korea, there has not yet been a national prospective cohort study in subjects with obesity or overweight for the evaluation of comorbidities and mortality in this population, although such prospective cohort studies exist in people with diabetes (Korean National Diabetes Program) or hypertension (Korean Hypertension Cohort study).^{6,7} In this issue, Cho et al.⁸ published the methods and an initial report of the baseline characteristics of the participants in the Gangwon Obesity and Metabolic Syndrome Study. This is the first prospective cohort study planned and initiated by Korean Society for the Study of Obesity (KSSO), the official society for research on population with obesity in Korea. Although the target population of the study is the residents in Gangwon Province, a single rural area, and not a national cohort, this study is meaningful in that the participants will be continuously recruited and if the cohort is well maintained, this cohort study could be extended to other areas of Korea. The collected samples and data will be stored and secured by KSSO, and this could empower the representativeness of the cohort.

I want to congratulate KSSO on the beginning of this long but exciting journey, and I hope that this cohort will someday be extended to all areas of Korea to yield a national prospective cohort of Korean people with obesity and metabolic syndrome. Of course, the results from this cohort would shed light on strategies to halt the increasing prevalence of obesity and to prevent comorbidities in obese people in Korea.

CONFLICTS OF INTEREST

Eun-Jung Rhee has been the Editor-in-Chief of the Journal of Obesity & Metabolic Syndrome. However, she was not involved in peer reviewer selection, evaluation, or decision process of this article.

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