EDITORIAL

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High prevalence of chronic obstructive pulmonary disease in Korea

Chin Kook Rhee

Division of Pulmonary, Allergy and Critical Care Medicine, Department of Internal Medicine, College of Medicine, Seoul St. Mary's Hospital, The Catholic University of Korea, Seoul, Korea

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South Korea has a very high prevalence of chronic obstructive pulmonary disease (COPD). According to data from the Fourth Korean National Health and Nutrition Survey [1], the prevalence of COPD among subjects aged ≥ 40 years is 13.4% (19.4% of males, 7.9% of females). This is considerably higher than in other countries. COPD is a heterogeneous disease [2], the prevalence of which is influenced by diverse factors. Therefore, the high rate in Korea may have several explanations; these are outlined below.

First, Korea has a rate of cigarette smoking considerably higher than that of other countries. In 1995, the rate among Korean adult males was 66.7%. Although it has since decreased, it was 36.2% in 2013, which is the highest of all OECD (The Organisation for Economic Co-operation and Development) countries [3]. Second, a large number of Korean females have been exposed to biomass fuel in previous decades. Third, many in South Korea have tuberculosis (Tb), which might be related to the high rate of COPD. According to data from The Latin American Project for the Investigation of Obstructive Lung Disease (PLATINO study) [4], a history of Tb is associated with airflow obstruction. Moreover, a study in Korea [5] reported that 76.8% of patients with Tb-destroyed lungs showed airflow obstruction. Tb is also a risk factor for lung function impairment among Korean non-smokers [6].

The prevalence of COPD in North Korea is unclear due to a dearth of data. Furthermore, collection of such data is hampered by the restrictions placed on society in North Korea. However, its rate there is expected to be very high, because the three abovementioned risk factors for COPD are likely markedly more common there than in South Korea. Indeed, Kim et al. [7] reported that among 272 male North Korean defectors, 84.2% were current smokers and 12.5% were ex-smokers. Such a high rate of smoking will inevitably lead to a high prevalence of COPD. In addition, North Korea is one of the poorest countries in the world and thus smoke inhalation from the burning of wood, charcoal, and other biomass is likely frequent. Furthermore, the country has an extremely high rate of Tb: at 345 cases out of every 100,000 people, it is higher than that in some countries with an epidemic of generalized human immunodeficiency virus [8]. Moreover, the lack of advanced medical facilities and/or anti-Tb medication and the high prevalence of multidrug-resistant Tb in North Korea suggest a high rate of Tb-destroyed lungs.

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Correspondence to
Chin Kook Rhee, M.D.
Division of Pulmonary, Allergy and Critical Care Medicine, Department of Internal Medicine, College of Medicine, Seoul St. Mary's Hospital, The Catholic University of Korea, 222 Banpo-daero, Seocho-gu, Seoul 06591, Korea
Tel: +82-2-2258-6067
Fax: +82-2-599-3589
E-mail: chinkook@catholic.ac.kr.

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The high rate of COPD in South Korea and probably considerably higher rate in North Korea represent a huge socioeconomic burden. Screening for early COPD should be performed and adequate treatment should be provided in South Korea. Regarding North Korea, considerable effort will be required post-unification to identify and manage individuals with COPD.

Conflict of interest

No potential conflict of interest relevant to this article was reported.

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