

Effect of Environmental Factors on Incidence of Type2 Diabetes : A Systematic Review

Keiko TANAKA¹⁾, Keisuke MIZOGUCHI²⁾, Mariko SIMOGUCHI²⁾,
Hiroshi YATSUGI²⁾, Kaoru HAMADA²⁾, Hiroki BANDO²⁾,
Takaaki KIBE²⁾, Hiromu OGURA²⁾, Atsushi TSUJIMOTO²⁾
and Yoshihiro MIYAKE¹⁾

¹⁾ *Department of Public Health, Faculty of Medicine, Fukuoka University*

²⁾ *Medical Student in the Third Grade, Faculty of Medicine, Fukuoka University*

Abstract : Despite the fact that numerous studies have been published regarding the possible effect of environmental factors on type2 diabetes, the findings remain unclear. We conducted a systematic review of cohort studies (including some nested case-control studies) which evaluated the effect of environmental factors, such as lifestyles and body weight, on the incidence of type 2 diabetes. We searched the 2002–2007 PubMed database for original articles which had been published in English. We selected 54 articles for analysis after considering 575 papers. No statistically significant relationship between the various environmental factors and the incidence of type2 diabetes was reported in many papers. However, physical activity was significantly and inversely associated with type2 diabetes in a relatively large number of papers. On the other hand, an increased body mass index was significantly and positively related to type2 diabetes in several papers. Because most of the studies were carried out in Western countries, the application of these findings to people in other countries, including Japan, may not be appropriate. The differences between Japan and Western countries should therefore be carefully taken into consideration when interpreting the results.

Key words : Environmental factors, Systematic review, Type2 diabetes