



How Should We Effectively Support Smoking Cessation at Health Checkup Opportunity and Induce More Quitters

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Smoking causes many diseases such as coronary artery disease, stroke, cancer, diabetes, COPD, and periodontal disease¹, and it is estimated that more than 130,000 people die from smoking annually in Japan². In comparison of the risk for developing cardiovascular disease, the risk of smoking is almost equal to that of metabolic syndrome³, and smoking cessation in cardiovascular disease prevention is highly important even if weight gain was observed after smoking cessation⁴. In the Japan Atherosclerosis Society (JAS) guidelines for prevention of atherosclerotic cardiovascular diseases 2017 edition, smoking is a risk factor for coronary artery disease, stroke, abdominal aortic aneurysm, and peripheral artery disease, and passive smoking is also a risk factor for coronary artery disease and stroke⁵. For primary and secondary prevention of atherosclerotic cardiovascular diseases, it is strongly recommended to stop smoking and to avoid passive smoking⁵.

Metabolic syndrome is recognized as a condition prone to atherosclerotic cardiovascular diseases based on accumulation of visceral fat and increased insulin resistance. Focusing on the condition of accumulation of risk factors to prevent cardiovascular diseases, the Specific Health Checkups and Specific Health Guidance, the Japanese nationwide cardiovascular prevention system, started as metabolic health checkup in Japan^{6, 7}. Although smoking was initially only added as an additional risk of stratification, it was obliged to make health guidance for smoking including the day of health checkup due to the revision of the 2013 version. However, health guidance for smoking cannot be done enough now. Health checkup is an opportunity

for health consciousness to be raised for examinees, which is a great opportunity to provide individual health promoting information to many examinees. In the guidelines of WHO's Tobacco Control Framework Convention Article 14 (Demand reduction measures concerning tobacco dependence and cessation) adopted in Uruguay in November 2010, smoking cessation advice is required to be offered at health care sites as a measure to promote smoking cessation in the health-care system internationally⁸.

In this issue, Nakamura and colleagues examined whether specific health guidance promotes smoking cessation among targeted smokers using propensity score matching analysis⁹. They found that in the Japanese cardiovascular prevention system, repeated counseling may promote smoking cessation for obese male smokers classified as active support. This manuscript contains important information on how to effectively use limited time and cost for smoking cessation guidance of many smokers in a routine program. It is important to select candidates who are more effective and to continuously support smoking cessation on an ongoing basis. However, it is reported that short time intervention for smoking cessation at medical examination will raise smoking cessation rate¹⁰. Therefore, implementing short-term smoking cessation support (ABR: Ask, Brief advice, Refer) including information of smoking cessation treatment such as the effectiveness of smoking cessation aid for about 1 minute for all smokers will give rise to many quitters. Furthermore, it is also important to provide the information on the hazards of secondhand smoke to all examinees including non-smokers^{11, 12}.

Conflicts of Interest

None.

References

- 1) U.S. Department of Health and Human Services. The Health

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- Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014
- 2) Katanoda K, Marugame T, Saika K, Satoh H, Tajima K, Suzuki T, Tamakoshi A, Tsugane S, Sobue T: Population attributable fraction of mortality associated with tobacco smoking in Japan: a pooled analysis of three large-scale cohort studies. *J Epidemiol.* 2008; 18: 251-264
 - 3) Higashiyama A, Okamura T, Ono Y, Watanabe M, Kokubo Y, Okayama A: Risk of smoking and metabolic syndrome for incidence of cardiovascular disease-comparison of relative contribution in urban Japanese population: the Suita study. *Circ J.* 2009; 73: 2258-2263
 - 4) Komiyama M, Shimada S, Wada H, Yamakage H, Satoh-Asahara N, Shimatsu A, Akao M, Morimoto T, Takahashi Y, Hasegawa K. Time-dependent changes of atherosclerotic LDL complexes after smoking cessation. *J Atheroscler Thromb.* 2016; 23: 1270-1275
 - 5) The Japan Atherosclerosis Society (JAS) guidelines for the diagnosis and prevention of atherosclerotic cardiovascular diseases in Japan--2017 version (in Japanese)
 - 6) Kohro T, Furui Y, Mitsutake N, Fujii R, Morita H, Oku S, Ohe K, and Nagai R: The Japanese national health screening and intervention program aimed at preventing worsening of the metabolic syndrome. *Int Heart J.* 2008; 49: 193-203
 - 7) Matsuzawa Y, Funahashi T, and Nakamura T: The concept of metabolic syndrome: contribution of visceral fat accumulation and its molecular mechanism. *J Atheroscler Thromb.* 2011; 18: 629-639
 - 8) WHO Framework Convention on Tobacco Control. Guidelines for implementation of Article 14 of the WHO Framework Convention on Tobacco Control. Demand reduction measures concerning tobacco dependence and cessation. WHO, 2011. (http://www.who.int/fctc/guidelines/adopted/guidel_2011/en/)
 - 9) Nakamura K, Watanabe M, Okuda N, Yoshita K, Kabayama M, Torii S, Kuribayashi T, Itai K, Kamide K, Miura K, Okayama A. The Influence of the Japanese Nationwide Cardiovascular Prevention System Health Guidance on Smoking Cessation Among Smokers: A Propensity Score Matching Analysis. *J Atheroscler Thromb.* 2018; 25: 323-334
 - 10) Mitsumune T, Senoh E, Adachi M, Nakamura M, and Masui S: COPD Prevention at Health Checkup: Mainly Describing the Promotion of Smoking Cessation by Brief Intervention. *Health Evaluation and Promotion.* 2010; 37: 490-492
 - 11) Lv X, Sun J, Bi Y, Xu M, Lu J, Zhao L, Xu Y. Risk of all-cause mortality and cardiovascular disease associated with secondhand smoke exposure: a systematic review and meta-analysis. *Int J Cardiol.* 2015; 199: 106-115
 - 12) Wang D, Juonala M, Viikari JSA, Wu F, Hutri-Kähönen N, Raitakari OT, Magnussen CG. Exposure to Parental Smoking in Childhood is Associated with High C-Reactive Protein in Adulthood: The Cardiovascular Risk in Young Finns Study. *J Atheroscler Thromb.* 2017; 24: 1231-1241