1. No.

   2020G034

2. Title

   Prospective Cohort Study on the Development of Allergic Rhinitis and Passive Smoking in Fetal and Childhood.

3. Period

   2020-2022

4. Summary

Pediatric allergic rhinitis rapidly increases after age 5 years. The impact of cigarette smoke, which is thought to cause spontaneous allergies, on childhood allergic rhinitis is unknown. A questionnaire survey and saliva analysis were conducted on the allergic rhinitis and passive smoking status of 6- to 7-year-old children participating in another birth cohort study.

Analysis of saliva samples from 314 children showed no significant association between passive smoking and the prevalence of allergic rhinitis or pollinosis. There was also no association between passive smoking and salivary microflora, salivary antibodies, or salivary cytokines. On the other hand, there was a significant association between passive smoking and allergic rhinitis symptoms. Furthermore, it was found that salivary inhibitory cytokine IL-10 was significantly decreased by concurrent use of combustible and non-combustible cigarettes during symptoms (moderate) and passive smoking. IL-5, analyzed as a marker of tobacco smoke-induced natural-type allergy, was not associated with either passive smoking or allergic rhinitis.

These results indicate that passive smoking may affect the symptoms, but not the prevalence, of allergic rhinitis. It was also suggested that the type of tobacco exposed by passive smoking may also be relevant.