

Correspondence

Reply

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To the Editor:

We thank Kawada¹ for providing critical inquiries and comments about our article² demonstrating on the basis of a randomized controlled trial that approximately 32% fewer neonates who received the moisturizer developed atopic dermatitis (AD) by week 32 than did controls ($P = .012$ in log-rank test). Kawada previously reported³ that the prevalence of AD in children at age 0 year was 5.0% in boys and 2.7% in girls, and, therefore, boy against girl was the statistically significant risk factor for AD. Because the percentage of girls was 44.1% in the intervention group and 40.7% in the control group in our trial, it was inquired to specify the effect of sex imbalance on the preventive effect of moisturizer on AD. We performed a stratified log-rank test. In addition, stratified Cox regression models were used to explore the potential effects of the subjects' baseline characteristics on the time to develop AD, where stratification was made by the study treatment (intervention or control). As a result, our primary finding, the significant decrease in AD development in the intervention group, was supported by the stratified analysis by sex ($P = .0149$). For reference, the hazard ratio of boys over girls was 1.175 (95% CI, 0.660-2.093). Although the reason of this discrepancy is unclear, it should be noted that different criteria for diagnosing AD were used in the 2 studies. Of course, more participants would be required to confirm the effect of sex differences in a future study. In addition, solid criteria for diagnosing AD, especially among infants, should be used in such a study.

For his second inquiry regarding the factor strongly contributing to AD incidence, we were able to identify a meaningful decrease in the incidence among children with siblings ($P = .042$; hazard ratio = 0.483; 95% CI, 0.239-0.976) using exploratory analyses by Cox models. Although we did not ask the parents regarding lifestyle factors in detail, as we wrote in the Online Repository, a high socioeconomic status of expectant parents at the National Center for Child Health and Development might have affected the relatively high incidence of AD among their children.² Regarding his comment on asthma onset in a further study, it was indeed one of the secondary outcomes as stated in the clinical trials registry (UMIN-CTR; UMIN000004544). Although we agree with his comment, we realized that we have to treat these new-onset AD infants immediately and intensively even in the control group, mainly upon parents' requests. We are now planning another randomized controlled trial to find an answer to this important question.

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