

### Editorial

# Effectiveness of Maternal Vitamin D Supplementation in Preventing Respiratory Tract Infections in Children

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Vitamin D exhibits a hormone-like action in our body and the deficiency or insufficiency of vitamin D is known to be related to the occurrence or prognosis of various diseases. In the *Korean Journal of Family Medicine*, papers on the relationship between vitamin D levels and colon polyps, <sup>1)</sup> autoimmune thyroid disease, <sup>2)</sup> lung function, <sup>3)</sup> dry eyes, <sup>4)</sup> cardiovascular disease risk, <sup>5)</sup> and quality of life, were published. Among these effects, vitamin D is known to play an important role in bone growth and immune function. Although it is known that the administration of vitamin D reduces respiratory infections, there has been an interest in whether vitamin D administration during pregnancy reduces respiratory tract infections (RTIs) in newborns.

In the present issue, Sulaiman et al.<sup>7)</sup> investigated the effect of maternal vitamin D supplementation in preventing RTIs in children. This systematic review selected three randomized controlled trials with a total of 3,224 participants (mother-infant pairs). It was found that maternal vitamin D supplements had no effects on RTIs among children (n=1,486 offspring; risk ratio, 0.95; 95% confidence interval, 0.82–1.11; random effects; I² statistics, 0%).

A systematic review on a topic similar to this study was published twice, but the conclusions of the two reviews were different. The systematic review by Christensen et al.<sup>8)</sup> showed results supporting a preventive role of vitamin D during pregnancy on the risk of RTIs in offspring, whereas the systematic review by Tareke et al.<sup>9)</sup> showed that there is no significant evidence to promote vitamin D supplementation. However,

based on these results, it can be said that maternal vitamin D supplementation had no effect on RTIs in children.

Moreover, these results do not mean that pregnant women have no need for vitamin D supplementation. A study found that 4,000 IU of vitamin D daily had the greatest benefits in preventing preterm labor/births and infections, <sup>10)</sup> and most institutions recommend vitamin D supplementation during pregnancy. Therefore, vitamin D supplementation should be continued. However, supplementation is not necessary to reduce RTIs in children since its effect is insignificant.

### **CONFLICT OF INTEREST**

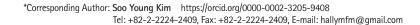
No potential conflict of interest relevant to this article was reported.

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