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Reply

To the Editor:

Osamu et al identified a distinct increase in body mass index (BMI) after puberty that is probably not related to early adiposity rebound. We consider this to be a valuable point.

We identified 3 BMI trajectories in early life and the high-increasing groups had the greatest risks of cardiovascular disease risks in middle age.[1] It has been reported that early BMI rebound, which is related to being overweight at 6 years of age, is associated with adult obesity.[2] We used the cut-off points of BMI_{24} and BMI_{28} at 18 years of age, and found few children with overweight at 6 years of age in our study.[3,4] We indicated that these data do not fully reflect the relationship between BMI trajectory from birth to middle age and cardiometabolic risks.

Additionally, participants in the high-increasing group experienced moderate initial BMI levels from 12 years of age and exceeded BMI levels in the moderate-increasing group at 18 years of age. Puberty involves a series of physiologic and metabolic changes as well as changing fat distribution.[4] Osamu et al pointed out there is a distinct subgroup in which BMI increases rapidly after onset of puberty, exacerbating the cardiovascular disease risk owing to increasing adiposity. We found that, in the high-increasing group, the relative risk of hypertension is more than 2 times higher for those in puberty compared with those in prepuberty, but participants in prepuberty had higher relative risks of diabetes, high-risk high-density lipoprotein cholesterol levels, and triglycerides than those in puberty (see Table V in the article). Puberty is another important period to focus on obesity prevention, but its relationship with cardiovascular risk needs further analysis in large-scale studies.

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Age differentiation in children with asthma treated with intravenous magnesium sulphate

To the Editor:

With great interest we read the article by Johnson et al regarding intravenous magnesium sulphate (IVMg) in children between 2 and 17 years of age with acute asthma.[1] The authors reported that clinicians used IVMg in 10.5% of 60 000 children visiting with asthma. Other findings include highly variable use between centers, mostly in moderate and severe asthma cases, late administration of IVMg in the emergency department, and low return rates of treated children within 72 hours after discharge.

The authors did not report separately their findings for young children between 2 and 5 years of age with acute episodic viral wheezing and children of 6 years and older with acute asthma. Evidence of effect of IVMg in acute episodic viral wheezing, similar to oral corticosteroids and bronchodilators, is limited.[2-6] For example, Pruikkonen

et al found that IVMg was not an effective treatment in children with acute episodic viral wheezing and also did not result in a reduction of hospital admission.[2] This inequality may be explained by different pathophysiology between acute episodic viral wheezing and acute asthma. Endobronchial biopsies showed, for example, that the thickening of the epithelial reticular basement membrane and the eosinophilic inflammation characteristics was present in children and adults with acute asthma, but not seen in symptomatic infants with reversible airflow obstruction.[7] It would be interesting to know if differences in IVMg use were also observed in the study of Johnson and if so, were due to lower expectations of efficacy in the younger age group.

We agree that a large randomized controlled trial is necessary to determine the efficacy and safety of early IVMg administration thereby taking into account these 2 age groups. Because administration of IVMg is used as treatment in children with asthma exacerbations, the need for intravenous salbutamol administration and transfer to a pediatric intensive care unit may also be included as outcome measures.

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Reply

To the Editor:

As van Weelden et al recognize, there is ongoing debate and investigation to understand how best to treat children with wheezing, and whether young children with wheezing benefit from the same asthma treatment as older children. Although we did not subdivide our published analysis by age, analyzing children 2-5 years separately from those older than 5 years, our unpublished data include 7737 visits for asthma treatment in children younger than 2 years of age. In 407 of these visits, children received IVMg, and the use of IVMg varied by site, similar to the published dataset. Variation in use of IVMg in children under 2 years of age and in children 2-17 years of age would suggest similar variability is expected in children 2-5 years of age. We agree that only in a prospective clinical trial can we expect to learn whether intravenous magnesium is effective in these children.

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Neonatal antibiotics and infantile colic in term-born infants

To the Editor:

Salvatore et al[1] assessed the prevalence of functional gastrointestinal disorders (FGIDs) in the first year of life and the influence of different neonatal factors on the development of FGIDs. In 42% of term-born infants, infantile colic was diagnosed by the Rome III criteria through standardized interviews at 1, 3, 6, and 12 months. A high percentage of full-term infants received antibiotics at birth (22%), although severe acute infection was an exclusion criterion for the study. An important finding was that antibiotic use in the first week of life was associated with an increased risk of infantile colic in (pre)term-born infants (aRR, 1.24; 95% CI, 1.06-1.45). Unfortunately, no data on the duration of antibiotic exposure were available.