Reviewer’s report

Title: Latin American Consensus: Children Born Small for Gestational Age

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Reviewer: Martijn Finken

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This is a paper from a group of SGA experts from Latin America. In general, the paper offers a practical guideline for health care workers in these countries but a few points need improvement before publication can be considered.

Major compulsory revisions

1. Epidemiology. There seems to be a wide range in the number of SGA births among Latin American countries. How can this discrepancy be explained? For instance, the authors mention that only 3.6% of the children in Colombia are born with a birth weight <P10 (while 10% is expected). Could this be explained by a bad population reference, a secular trend toward higher birth weight or a local effect?

2. Initial identification. It is difficult to interpret head circumference in the first 2 days of life, especially after a vaginal delivery. Some recommendation about the timing of measurements should be provided.

3. Initial identification. The more premature a child is born the more difficult it is to assess his/her body proportions, for a few reasons. First, reference populations often lack extremely preterm infants. In other words, the intrauterine growth curve is not very reliable in the lower range of gestational ages. Second, most population references are based upon liveborn children. A variable degree of growth retardation is common before a preterm baby is born. These points should be acknowledged.

4. Follow-up during GH treatment. Is it really necessary to measure indices of glucose homeostasis every 6 months in all children? I think risk factors for diabetes, such as obesity or a positive family history for diabetes, should be identified prior to testing for metabolic derangements in children at risk.

5. SGA and Metabolic Risks. It should be mentioned how insulin resistance is assessed by the studies. For instance, in the study by Soto et al. fasting insulin level is measured. Therefore, the statement that insulin levels and insulin resistance were measured, is incorrect. Insulin resistance was derived from fasting levels of glucose and insulin. This method is different from a glucose tolerance test or clamp techniques.

6. Implementation. In light of the high prevalence of SGA: is it necessary to refer a mother to “a high-risk obstetric clinic with special care for certain diseases.” Earlier in their manuscript the high prevalence of SGA is emphasized by the authors. Is centralization of common conditions really warranted? This should be
clarified.

Minor essential revisions

7. General. Page numbers are lacking. These are especially helpful for a reviewer.

8. General. There is a difference between height and length. Length is always measured in supine position. Height is usually standing height.

9. Abstract. Results and Discussion. Birth weight and/or length of greater than 2 SD below the population reference mean.

10. Definition of SGA. What is meant by the definition of SGA is not exact? Do the authors mean unclear?

11. Causes of SGA. Fetal growth is mediated through IGF1, IGF2 and insulin. An excess of cortisol negatively influences fetal growth.

12. Adverse effects. A study has demonstrated… While 2 references are provided by the authors.

13. Puberty and SGA. What is the difference between the progression and the tempo of puberty?

14. SGA and Metabolic Risks. …with a key feature of insulin resistance. I think the authors mean: …with insulin resistance as the key factor.

15. SGA and Metabolic Risks. Several explanations have been put forward for the association between SGA and increased metabolic risks. I agree with the authors that the “catch-up growth hypothesis” is the most plausible explanation for these associations but other hypotheses have been put forward, such as the fetal cortisol hypothesis (Edwards et al., Lancet 1993) and the fetal insulin hypothesis (Hattersley et al., Lancet 1999). These should be briefly mentioned.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.