


REPLY:

The suggestion that the inverse correlation of primary bile acids (BAs), cholic acid, and chenodeoxycholic acid in serum of women with natural cycle *in vitro* fertilization of ovum pick-up with birth weight might explain the low birth weight of infants from women with cirrhosis that we describe⁽¹⁾ has no obvious relevance to our data. Of note, the authors speculate that the patients reported in our paper had elevated serum BA concentrations, but this may have not been the case as many women with cirrhosis do not have underlying cholestatic disease and the main causes of cirrhosis in our cohort were viral and autoimmune hepatitis. Furthermore, van Montfoort et al. did not find an association between total BA and birth weight. This is of importance because there are published data that report increased weight of neonates from mothers with intrahepatic cholestasis of pregnancy when corrected for gestational age, and these infants have elevated BA.^(2,3) Also, data on gestational hormones that might have affected serum BA levels at ovum pick-up are not provided.

Hannes Hagström, M.D., Ph.D. ¹

Catherine Williamson, M.D.²

Hanns-Ulrich Marschall, M.D., Ph.D., M.Sc.³

¹Center for Digestive Diseases

Division of Hepatology

Karolinska University Hospital

Stockholm, Sweden

²Department of Women and Children's Health, King's College Hospital
London, United Kingdom

³Department of Molecular and Clinical Medicine and Wallenberg Laboratory, Institute of Medicine, Sahlgrenska Academy
University of Gothenburg
Gothenburg, Sweden

REFERENCES

- 1) Hagstrom H, Hoijer J, Marschall HU, Williamson C, Heneghan MA, Westbrook RH, et al. Outcomes of pregnancy in mothers with cirrhosis: a national population-based cohort study of 1.3 million pregnancies. *Hepatol Commun* 2018;2:1299-1305.
- 2) Martineau MG, Raker C, Dixon PH, Chambers J, Machirori M, King NM, et al. The metabolic profile of intrahepatic cholestasis of pregnancy is associated with impaired glucose tolerance, dyslipidemia, and increased fetal growth. *Diabetes Care* 2015;38:243-248.
- 3) Cheng XY, Zhang LJ, Lin L, Liu J, Ding YL. Relationship of fetal total bile acid and the change of fetal pancreas endocrine secretion and its impact on fetal growth and development in intrahepatic cholestasis of pregnancy. [in Chinese] *Zhonghua Fu Chan Ke Za Zhi* 2009;44:23-26.

© 2019 The Authors. *Hepatology Communications* published by Wiley Periodicals, Inc., on behalf of the American Association for the Study of Liver Diseases. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

View this article online at wileyonlinelibrary.com.

DOI 10.1002/hep4.1343

Potential conflict of interest: Nothing to report.