



## Comments on the article entitled “Risk factors associated with insulin requirement in patients with gestational diabetes in a referral hospital in Buenos Aires, Argentina: retrospective cohort study”

### Comentarios acerca del artículo “Factores de riesgo asociados al requerimiento de insulina en pacientes con diabetes gestacional en un hospital de referencia en Buenos Aires, Argentina: estudio de cohorte retrospectiva”

*María Gracia C. Castro-Trujillo*<sup>1</sup>, *Daniela S. Infante-Paredes*<sup>2</sup>, *Alfredo Chiappe-Gonzalez*<sup>3</sup>

Received: 19 September, 2023 Accepted: 20 March, 2024

#### To the Editor:

After carefully reading the article by Rovira et al. (1), published in the Colombian Journal of Obstetrics and Gynecology (*Revista Colombiana de Obstetricia y Ginecología*), vol. 74, No. 2, we would like to make a few observations.

At the present time, gestational diabetes mellitus (GDM) is a public health problem, with a global prevalence of approximately 16.2% (2), the main risk factors being those mentioned by the authors in the article (1). However, we find that there are relevant variables in the management of GDM which have not been considered as part of the risk factors for insulin requirement, as is the case with multiparity and a prior history of GDM (3,4). According to

cohort studies like the one conducted by Ouzounian et al. (4) with the aim of assessing factors associated with insulin therapy initiation in 1,451 women with GDM, there is a significant association between multiparity and the presence of this condition in previous pregnancies, and the initiation of insulin. This information is supported by Méndez-Miguez et al. (3) in their study of 113 patients with GDM which found that a history of GDM during a previous pregnancy was among the only predictive factors for poor response to dietary treatment and the need for insulin therapy. We believe that in examining associations between risk factors and insulin therapy initiation, it is of the utmost importance to consider all possible variables as part of the analysis, thus reducing confounding factors. Additionally, the study of the degree of co-linearity between variables would contribute to further reduce the confounding factor of the adjusted analysis.

Additionally, the authors of the article used GDM patients who received non-pharmacological management as the control population. However, the article does not state whether patients who used metformin as part of the dietary plan were included,

\* Correspondence: María Gracia C. Castro-Trujillo, 33, Av. Alfredo Benavides 5440, Santiago de Surco, Callao (Perú). [daniela.infante@urp.edu.pe](mailto:daniela.infante@urp.edu.pe)

1. Universidad Ricardo Palma. Lima (Perú). <https://orcid.org/0009-0007-6675-4058>
2. Biomedical Science Research Institute, Universidad Ricardo Palma. Lima (Perú). <https://orcid.org/0009-0005-2369-5495>
3. Biomedical Science Research Institute, Universidad Ricardo Palma. Lima (Perú). <https://orcid.org/0000-0003-0687-3112>

**How to cite this article:** Castro-Trujillo MGC, Infante-Paredes DS, Chiappe-Gonzalez A. Comments on the article entitled “Risk factors associated with insulin requirement in patients with gestational diabetes in a referral hospital in Buenos Aires, Argentina: retrospective cohort study”. *Rev Colomb Obstet Ginecol.* 2024;75:4046. doi: <https://doi.org/10.18597/rcog.4126>

or if they were excluded from the study. In its most recent guidelines for the management of diabetes during pregnancy, the National Institute for Health and Care Excellence (NICE) recommends the use of this drug as a complement or as an alternative to the use of insulin, highlighting that some suggestions regarding the use of insulin are secondary to failed therapy based on diet, exercise and metformin. This recommendation has been effective since 2015 (5). There are studies like the randomized clinical trial carried out by Rowan et al. (6), in which no significant increase in neonatal complications was found in patients with GDM who received metformin, with only 46.3% requiring insulin supplementation. They concluded that the use of metformin alone is an effective and safe option for the treatment of GDM, not to mention the fact that it is also better tolerated than insulin by pregnant women.

We believe that studies such as this one are of the greatest importance because of their contribution to GDM prevention and management approach. However, we would be remiss if we did not make the above observations, as they can be used as input for future research work.

## REFERENCES

1. Saban M, Rovira G, Curriá MI. Risk factors associated with the need for insulin in patients with gestational diabetes in a reference hospital in Buenos Aires, Argentina: retrospective cohort study. *Rev Colomb Obstet Ginecol.* 2023;74(2):136-42. <https://doi.org/10.18597/rcog.3883>
2. Prado Herrera MF, Guerrero-Aguilar AS, Alatrística-Gutiérrez-Vda. Bambarén MS, Vela-Ruiz JM, Lama-Morales RA. Gestational diabetes: impact of risk factors in latin america. *Rev Peru Investig Matern Perinat.* 2023;12(1):33-43. <https://doi.org/10.33421/inmp.2023317>
3. Méndez-Míguez I, Álvarez-Silvares E, Rubio-Cid P, Castro-Vilar L, Seoane-Pillado T. Predicción del tratamiento con insulina en pacientes con diabetes mellitus gestacional. *Ginecol Obstet Méx.* 2020;88(11):745-55.
4. Ouzounian JG, Rosenheck R, Lee RH, Yedigárova L, Walden CL, Korst LM. One-hour post-glucola results and pre-pregnancy body mass index are associated with the need for insulin therapy in women with gestational diabetes. *J Matern Fetal Neonatal Med.* 2011;24(5):718-22. <https://doi.org/10.3109/14767058.2010.521869>
5. NICE. Diabetes in pregnancy: Management from pre-conception to the postnatal period. London: National Institute for Health and Care Excellence (NICE); 2020 (NICE Guideline, No. 3).
6. Rowan JA, Hague WM, Gao W, Battin MR, Moore MP, MiG Trial Investigators. Metformin versus insulin for the treatment of gestational diabetes. *N Engl J Med.* 2008;358(19):2003-15. <https://doi.org/10.1056/NEJMoa0707193>

**Conflicts of interest:** The authors declare that they have no conflict of interest.