

The problem of biopolymers in Colombia impacts the health system

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Dear Editor,

Through this writing, we wish to express our concern about the profound repercussions that the use of biopolymers or unregistered (illicit) modeling substances has generated in Colombia, both regarding individual cases, and the overall health system. This problem is particularly alarming when these procedures are performed by non-medical personnel.

Modeling substances have been widely used in aesthetic procedures to generate volume in areas such as the buttocks, face, and breasts. However, many patients developed mild to severe complications from the first hours to decades after undergoing treatment. The effects range from minimal aesthetic alterations to deformities, substantial psychological impact, economic costs, and serious health issues. The most frequent clinical signs are inflammatory processes, substance migration, pain, erythema, pigmentation, edema, fibrosis, keloids, infections, fistulas, skin necrosis, and, ultimately, death^{1,2}.

The complications derived from the use of these substances have been recognized under the term Iatrogenic Allogeneisis, with an estimate of more than one million people affected in Latin America, the majority being women². Despite the limited available scientific evidence, Colombia stands out as one of the most impacted countries³.

In response to this problem, Law 2316 of 2023 was passed, which prohibits the biopolymer use in aesthetic procedures and establishes criminal sanctions for those who apply them. Although this law represents a significant advance in the protection of patients, concerns are raised from the professional point of view of aesthetic medicine and plastic surgery. Some aspects, such as control measures and the implementation of sanctions, require greater precision to ensure their effectiveness and avoid affecting certified doctors who act within the ethical and legal framework.

In addition, we call to reinforce health education to prevent the use of these substances and increase the training of professionals in the comprehensive management of associated complications. Authorities must continue to promote scientific research that allows us to better understand the scope of the problem and optimize intervention strategies.

The current situation demands a joint effort between the medical, legislative, and educational sectors to mitigate the impacts of this crisis and prevent future cases. We appreciate your attention to this very relevant issue and trust that disseminating these concerns will contribute to the development of effective solutions.

Thank you for your attention to this important matter.

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References

1. Dominguez-Zambrano A, Haddad-Tame JL, Torres-Baltazar I, Jiménez- Muñoz G, Satré-Ortíz N, Espinosa-Maceda S. Enfermedad por modelantes: problemática actual en México y presentación de casos. *Cir plást iberolatinoam.* 2013; 39(4):399-405.
2. Coiffman F. Alogenosis iatrogénica: una nueva enfermedad. *Cir plást iberolatinoam.* 2008; 34(1):1-10.
3. Galindo OLG, Hoyos FAN, Yacub YLÁ. Situación actual de la aplicación de biopolímeros en cirugía estética de glúteos: una revisión sistemática aplicando la guía PRISMA. *Rev Colomb Cir Plástica Reconstr.* 2022; 28(1):28-36.

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