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## RELATIONSHIP BETWEEN FERMENTED DAIRY CONSUMPTION, GUT MICROBIOTA AND TYPE 2 DIABETES

*Dear Editor,*

The article by Baraquet et al. (1), published in *Nutrición Hospitalaria,* analyzed the relationship between consumption of dairy products and type 2 diabetes (T2D) in an Argentine population. Clinical and anthropometric variables were evaluated. The results showed that the consumption of fermented dairy products was inversely associated with blood glucose levels and glycated hemoglobin. Additionally, higher total dairy intake was related to a lower probability of developing T2D. Here, we wish to contribute with a reflection on this research, considering the role of the microbiota.

The relationship between gut microbiota and type 2 diabetes (T2D) is an emerging field of study that promises to offer new perspectives on the pathogenesis and treatment of this disease (2). The gut microbiome participates in complex metabolic networks, influencing diseases such as T2D, Alzheimer's, and Parkinson's (3).

It has been demonstrated that treatment with the plant *Astragalus* improves intestinal barrier function and immunity, acting on the microbiome to treat T2D (4). Furthermore, bidirectional interactions between hypoglycemic medications and the gut microbiome have been identified in patients with T2D, suggesting that the microbiome may influence the effectiveness of these treatments (2). In Latin America, genetic and epigenetic variability, along with microbiome composition due to historical factors, could have a particular impact on the association between the microbiome and T2D, factors that we believe would be valuable to consider (5).

Finally, the study by Perazza et al. (6) found that fermented dairy protein intake modulates gut microbiota composition and improves insulin sensitivity in diet-induced obese mouse models. These findings are consistent with the results observed in the article commented on here. These associations point the way for future research integrating dairy product consumption, microbiota, and T2D to develop effective preventive strategies.

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