



Boletín Médico del Hospital Infantil de México

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EDITORIAL

Seventy years of life and validity of a legendary scientific article of universal resonance [☆]



Setenta años de vida y vigencia de un legendario artículo científico de universal resonancia

Hardly 3 years had gone by since the Hospital Infantil de México was set in motion, when an incomparable contribution by Professor Federico Gómez Santos appeared in volume III of the *Boletín Médico del Hospital Infantil de México*, corresponding to the fifth bimonthly issue (September-October).¹ Under the unusually concise title “Malnutrition”, a term that, in introductory words of his author, “... came to extraordinarily simplify the confusion and variety of names that existed in different pediatrics schools, and that were used to denominate similar ailments: the clinical entities that were called hypotrepsy, hypotrophy, dystrophy, atrepsy, Parrot’s atrophy, decomposition, consumption, and many others, which are simply different grades of the same illness of diverse etiology that now we generically call by the name of malnutrition...” this manuscript was published in 1946.¹

A little further, in just five printed lines, he defined the following:

“We denominate first-degree malnutrition to any weight loss that does not exceed 25% of the weight of the patient for his or her age; second-degree malnutrition refers to a weight loss fluctuating between 25-40%; and, finally, third-degree malnutrition to any weight loss that exceeds 40%”.¹

The graduation of the magnitude of malnutrition of infants and preschool children, which soon and over time would constitute one of the main indicators of individual and collective health in childhood, was globally identified as Gómez classification, and its author was recognized as an eponymous character among Mexican physicians.

Once his revolutionary proposals were delivered, the following sections of the article referred to the causes of severe

malnutrition; to the multiple clinical pictures that characterized malnutrition in infants and preschoolers, particularly second and third-degree malnutrition; and its prevention, especially regarding family and medical factors. Further details regarding rational treatment in terms of the degree of malnutrition were subsequently explained, with details giving a clear idea of the therapeutic concepts and resources available before the advent of the antibiotic era. The article finished with conclusions, which constitute a monument to the recognized didactic capacity of Dr. Federico Gómez.¹

Unfortunately, as it did and will continue happening, despite the visibility that Federico Gómez had in the worldwide pediatric community, it was not his original article but another—which appeared ten years later, in 1956, in an English journal—that eventually gave rise to the universal acceptance of the Gomez classification.² In fact, in 2000, this article was declared a classic work on global public health by the World Health Organization, which was classified as a landmark for this organization, and reproduced, in facsimile, in this organization’s *Bulletin*.³ This honor should have been granted to the original work of Federico Gómez, which appeared in the *Boletín Médico del Hospital Infantil de México*.¹ Certainly, Gómez classification was recognized as the first to resort to an anthropometric variable (body weight) in order to develop an indicator (weight corresponding to age). On this basis, it was possible to forge the classification of the various degrees of malnutrition, with a population reference and predetermined cut-off points. In fact, these same three parameters, from the conception of Gomez classification, constitute the basis of each of the modified classifications of malnutrition in children that have followed.

Mexican, Latin American pediatricians, and all of us must make a profound *mea culpa* for the omission of not having clamed and publicly advocated, at that time and subsequently, in pro of the breakthrough of the original article,

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which was released in Mexico. And by extension, how could it be that no Mexican physician, no disciple of Federico Gomez, had proposed a parallel system to grade the magnitude of the opposite pole of a deviation in the normal nutritional condition, namely adiposity, instead of the universal conceptual and linguistic folly of classifying it in "overweight and obesity"?

It is valid to denounce here, whether as a digression, that the same contempt applied during the forging of another milestone in the world of medicine, which, by the way, appeared in the next issue of the *Boletín Médico del Hospital Infantil de México*, following Federico Gómez article; that is the one corresponding to the November-December issue of 1946⁴. Based on the meticulous study of an index case, the enteric pathogenicity of a microorganism known to be a commensal in the colonic biota was demonstrated for the first time worldwide. This microorganism was rightly denominated *Escherichia coli-gomez*. At first, this discovery was fiercely challenged, even by distinguished Mexican infectologists. Six years later, when Kaufmann published his classification of Enterobacteriaceae,⁵ the existence of certain enteropathogenic strains of colibacilli was mentioned (of course, without mentioning the original article by Varela et al.⁴). Later, Dr. Varela, Dr. Olarte and Dr. Perez-Revelo showed that Mexican strains, characterized by the presence of *Salmonella adelaide* antigen, would result to be *Escherichia coli* O111: B4.⁶

Later, malnutrition, unnecessarily amplified with the double adjective "proteico-energetic", was the unifying notion—implanted by Federico Gomez in 1946—that drastically and gradually transformed the understanding and the management of this and other conditions of deficiency in childhood. Thus, a few years later, Federico Gómez and his work group were able to publish, also in a foreign pediatric journal, the results of the therapeutic management of third-degree malnutrition through a rational dietary restitution,

of course, without using commercial vitamin presentations. This article also enjoyed international resonance, and its conclusions, justified application.² The detonator of this original approach, the article entitled Malnutrition, deserves concentrated reading and a repeated rereading by every Hispanic physician, especially those who, by being involved in the different branches of Pediatrics, watch over the health of children of their homeland.⁷

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