



## **Hyperparathyroidism and anemia: an underestimated relationship?**

*Hiperparatiroidismo y anemia: ¿una relación subestimada?*

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### **Dear readers:**

In medicine, some pathophysiological associations go unnoticed for years before being recognized as key elements in the diagnosis and treatment of diseases. This is the case of the relationship between hyperparathyroidism (HPT) and anemia, a connection that, despite accumulating evidence, remains underestimated in routine clinical practice.

HPT, whether primary or secondary, has traditionally been studied for its consequences on bone and kidney metabolism. However, increasing data suggest that its impact goes further: parathyroid hormone (PTH) appears to play a relevant role in the regulation of erythropoiesis, and its excess could contribute to the development of anemia. <sup>(1)</sup>

Why is it crucial to investigate this association?

**1. Prevalence and clinical relevance:** Anemia is a common condition in patients with HPT, especially in those with severe forms or chronic kidney disease (CKD). <sup>(1)</sup> However, in many cases, it is attributed solely to nutritional deficiencies (iron, vitamin B12) or CKD, without considering the possible role of HPT. Retrospective studies indicate that up to 40% of patients with primary HPT present anemia, and that this improves after parathyroidectomy. <sup>(1)</sup>

**2. Therapeutic implications:** If HPT contributes significantly to anemia, its correction (through surgery or medical treatment in the case of secondary HPT) could be an effective strategy to improve hemoglobin levels. This is especially relevant in patients with refractory anemia, in whom conventional therapies (iron, erythropoietin) fail to achieve an adequate response. <sup>(2)</sup>

**3. Mechanisms to be elucidated:** Although several hypotheses have been proposed (suppressive effect of PTH on the bone marrow, alterations in iron metabolism, chronic inflammation), the exact mechanisms remain incompletely elucidated. <sup>(2)</sup> Future research could reveal novel therapeutic targets for the management of anemia in these patients.

Given the available evidence, it is imperative that endocrinologists, nephrologists, hematologists, and general practitioners work together to:

- Include anemia assessment in the routine workup of patients with HPT.
- Consider HPT as a possible cause of unexplained anemia, especially in treatment-resistant cases.
- Encourage prospective studies evaluating the impact of HPT correction on hematological parameters.

The study of the relationship between HPT and anemia is not merely an academic topic: it has direct implications for the clinical management of patients. Recognizing this association would allow for more accurate diagnoses and more effective treatments, improving the quality of life of those suffering from these conditions. It is time to stop underestimating this link and give it the place it deserves in research and medical practice..

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## STATEMENT OF AUTHORSHIP

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