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Knowing the meaning of the words we use: Gitelman's syndrome or Gitelman's disease?

Conociendo el significado de las palabras que usamos. ¿Síndrome de Gitelman o enfermedad de Gitelman?

Dear Editor,

Physicians have a great need for words to express the clinical signs and symptoms we observe in the many different forms of illness in our patients, which also need to be named. We need so many words that many of those we use are neologisms or eponyms dedicated to one or more pioneering physicians, whether or not they discovered a new disorder.

In the dictionary of the Real Academia Española [Royal Spanish Academy], the word síndrome [syndrome] is used to designate ä set of symptoms characteristic of a disease or a certain state. This is the case for example with oculo-cerebrorenal syndrome or haemolytic uraemic syndrome. Sometimes, with a single term, the word syndrome is used to designate a basic clinical concept that may be shared by several diseases originating from different causes, as is the case with nephrotic syndrome, for example. Finally, in other situations the term is accompanied by an eponym. This third option is more difficult to conceptualise, as the main symptoms that are characteristic of the disorder are replaced by the surname of an author who, curiously enough, was often not even the first to describe the association ("Stigler's Law"). Strictly speaking, as a set of characteristic symptoms defines a syndrome, an eponym should not be used to designate it.

Often in daily practice a defining term is used repeatedly without successive authors stopping to check whether or not it is a suitable word. Such is the case, for example, with Bartter and Gitelman syndromes. These are two tubulopathies which could certainly have been united, at the time, as one syndrome characterised by hypokalaemic alkalosis; but they were not.

In 1962 Bartter et al. described a new syndrome characterised by hyperplasia of the juxtaglomerular complex with hyperaldosteronism and hypokalaemic alkalosis. When other authors published new cases of the disease using the surname of the first author of the first paper published, they could have had no idea that they were in fact dealing with five

diseases, which have in common a loss of chloride and sodium whose origin is in the thick portion of the ascending limb of the loop of Henle. The use of the term syndrome in this case is debatable, since, as we have said, it is used to bring together ä set of symptoms characteristic of a particular disease or condition; not of five diseases of distinct aetiology. In addition, in other multiple disorders, as in Dent's disease, for example, the term syndrome is not applied. However, in the case of the disorder described by Gitelman et al. in 1966² the use of the term syndrome is certainly inappropriate, as it is a single disease with a clearly established aetiology.

In PubMed, the title or abstract of only seven out of 1804 and 11 out of 942 results read Bartter disease and Gitelman disease respectively, instead of the corresponding eponym accompanied by the word syndrome. However, in some papers published in this journal, the term Bartter disease has been used without being rectified by the Editorial Board at the time.³

In short, medicine in general and our speciality in particular have shown dizzying growth in recent years. Some seemingly inappropriate terms have persisted over time. Perhaps the time has come to reconsider how they are named in some of these cases.

REFERENCES

- Bartter FC, Pronove P, Gill JR Jr, MacCardle RC. Hyperplasia of the juxtaglomerular complex with hyperaldosteronism and hypokalemic alkalosis. A new syndrome. Am J Med. 1962;33:811–8, http://dx.doi.org/10.1681/ASN.V93516.
- Gitelman HJ, Graham JB, Welt LG. A new familial disorder characterized by hypokalemia and hypomagnesemia. Trans Assoc Am Physicians. 1966;79:221–35. PMID: 5929460.
- 3. García Nieto V, Claverie-Martín F. Enfermedad de Bartter con sordera neurosensorial (Bartter tipo IV). Una entidad descrita hace solo diez años. Nefrología. 2005;25:596–601. PMID: 16514898

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Consensus document on the management of hyperkalaemia. Response

Documento de consenso sobre el abordaje de la hiperpotasemia. "Respuesta"

Dear Editor,

A consensus document on the management of hyperkalaemia¹ was recently published in your journal. The article provides a comprehensive review of the published studies, but we found a number of discrepancies between the text and the figures, which we believe to be due to errors. We would therefore like to make a series of points.

We found it striking that in Figure 1, when referring to increased gastrointestinal elimination of potassium, only sodium zirconium cyclosilicate (SZC) is mentioned, when patiromer has exactly the same effect and, in fact, it is its mechanism of action that justified its authorisation.

Moreover, although neither patiromer nor SZC are indicated for the acute treatment of hyperkalaemia, with both of their summaries of product characteristics even highlighting that they do not have this indication, it seems reasonable to start long-term treatment as soon as possible, obviously without substituting the usual emergency treatment. Both products have shown a greater reduction in blood potassium at 2h, compared to placebo in the case of SZC and compared to standard treatment in the case of patiromer, with potassium returning to normal levels at 48 h. However, in Figure 2, only SZC is cited for the acute treatment of hyperkalaemia. It should be added that the consensus documents published in 2021 by the European Resuscitation Council² and in 2022 by SEMES-SEN-SEC (Sociedad Española de Medicina de Urgencias y Emergencias-Sociedad Española de Nefrología-Sociedad Española de Cardiología) [Spanish Society of Emergency Medicine-Spanish Society of Nephrology-Spanish Society of Cardiology|3 cite both products for use, both during hospital admission and at discharge home, as they may make it possible not to discontinue or reduce essential treatments that might induce hyperkalaemia, such as axis inhibitors, and thus not deprive the patient of their beneficial effects in the medium and long term.

As for Figure 3, a broad description of SZC is given, but not of patiromer. Patiromer also offers pleiotropic effects, such as lowering phosphorus levels, which is an advantage for many patients. One study showed normalisation of phosphorus and potassium levels after two weeks of treatment, which was maintained for four weeks in patients with chronic kidney disease (CKD) not on dialysis, hyperkalaemia and hyperphosphataemia.⁴

It is also difficult to understand why, despite a review of the data for the two products showing that the SZC trials included a lower proportion of patients with CKD, heart failure and diabetes with the same renin-angiotensin-system blocker treatment, without any justification, the algorithm states that SZC is especially indicated for patients with CKD. As we said at the beginning, this is probably an error, since in the case of patiromer the percentage of patients with CKD, diabetes mellitus and heart failure is higher, in addition to there being evidence in patients with resistant hypertension, among other patient profiles. In summary, patiromer allows us to address the need to treat hyperkalaemia across the entire spectrum of CKD.⁵⁻⁹

Regarding the safety of both products, there is no mention in the document that the administration of SZC and tacrolimus should be separated by 2h because of a possible interaction. And although it has not been considered to have an impact on its risk-benefit balance, the SZC summary of product characteristics received an update which included possible cases of intestinal perforation. Patiromer maintains its good safety profile. The adverse reaction section of the summary of product characteristics has remained unchanged since the first authorisation. In addition, the use of patiromer