



## EDITORIAL COMMENT

### Comment to “A new approach to urinary stone analysis according to the combination of the components: experience with 7,949 cases”

### Comentario a «Un nuevo enfoque en el análisis de la litiasis urinaria en función de la combinación de sus componentes: experiencia con 7.949 casos»

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Although we do not have reliable information, it is probable that, as occurs in other western countries, the incidence of new cases and the apparent prevalence of urinary kidney stones is increasing in our country,<sup>1</sup> whether it is because there is a real increase in kidney stone disease, or because more asymptomatic stones are detected in imaging examinations of the abdomen performed for any reason. In the coming years, kidney stones will therefore continue to be one of the urological diseases requiring preferential attention.

The work of Millán et al. in this edition of *Actas Urológicas Españolas*<sup>2</sup> studies the composition of the stones of almost 8,000 patients attended to between 1995 and 2005 at a single hospital, classifying them into seven main groups (calcium oxalate monohydrate, calcium oxalate dihydrate, uric acid, phosphates, struvite, cystine and others), and indicates the principal combination of components in multicomponent stones, which are the most frequently found. The relation of these stone components -both of the most frequent components as well as of the most common- with the age and sex of the patients, provides interesting

conclusions on the nature of kidney stone disease, its likely metabolic origin and its clinical consequences, in a population of patients that possibly is not very different to that you may see in any Spanish hospital.

For the general urologist, the four most frequent component groups that Millán et al. mention, according to the predominant element (stones with a predominance of calcium oxalate monohydrate, calcium oxalate dihydrate, calcium phosphate and uric acid), are the most important when considering underlying metabolic alterations and decisions regarding treatment and relevant follow-ups. The other groups of stones (stones with a predominance of struvite, cystine stones and those classified in the group of other stones), are more rare or have a more specific treatment.

This classification slightly simplifies the most complete proposal by Grases et al.<sup>3</sup> of eleven stone categories depending on their predominant component, which likewise shows a strong relation between the composition of the stone and its pathogenesis and the clinical and therapeutic aspects of interest. In the works of this outstanding kidney stone study group from Mallorca, they propose differentiating the calcium oxalate monohydrate stone depending on whether it is papillary or originated in low hydrodynamic renal cavities, which requires a careful

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study of the calculi. They also differentiate calcium oxalate dihydrate stones, depending on whether or not they are associated with calcium phosphate stones, and uric acid stones, depending on whether or not these are pure or associated with calcium oxalate stones.<sup>3-6</sup> Studies such as these commented on have until now been relatively few.<sup>7</sup>

There are numerous fields of knowledge of kidney disease that require explanatory studies. The many variations of compound stones that can be found -a reflection of the many etiological mechanisms involved in the genesis of crystals from supersaturated urine of certain molecules- and the difficulty of a general consensus on their classification and the comparison of their relative frequency in different geographic or group environments, is only one of them.<sup>8</sup> Issues of great interest, such as the intrarenal mechanisms that generate different stone compositions at different ages, the higher frequency of calcium phosphate stones in women, and others related especially to our activity environment, such as the high proportion of uric acid kidney stones in our country, compared to the countries around us, and their significantly high incidence in certain age groups (almost 30% of the stones in patients older than 69 years in the Millán et al. study are uric acid kidney stones), are far from having a satisfactory response.

Unfortunately, from the viewpoint of pharmacological treatment options, some forms of urinary kidney stones are on the verge of becoming orphan diseases. However, experience shows that in many cases, recurrent lithiasis can be prevented, whether with medication, with dietary regimens or changes in lifestyle, and this results in the patient's well-being and satisfaction.<sup>9</sup>

Urinary lithiasis is a generally benign disease, however it does have high costs because it affects a high proportion of the population, it has a recurrence rate close to 50%, and at times it is a chronic disease. More and more, we have to take into account the effect of our modes of treatment and follow-up on the patient's economy and on the public or private health system. Attention must be paid to the recommendations made in these studies, because they

could improve the protocols of urological care by reducing or eliminating visits to the doctor's surgery or to emergency rooms and the loss of time at work or social life as a result of the symptoms or need for medical attention.<sup>10</sup>

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