

On disease association

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Editor

As age of the population increases, the coexistence of two or more diseases in the same patient ceases to be an exception and becomes almost the rule. To define this, the term *comorbidity* has been employed, and this type of condition is referred to as *comorbid condition*. It is possible that these terms are not very well constructed in Spanish and that they are merely translations from English but, although alternatives such as *polymorbidity*, *multimorbidity*, *polyopathy*, *multiple diseases*, *multifactorial diseases*, *complex diseases*, *pluralpathology* and *associated or coexisting conditions* have been used, the truth is that the term *comorbidity* is already well established. The World Health Organization (WHO) has accepted it, especially with regard to the psychiatric setting, when a disorder induced by the consumption of a psychoactive substance and a psychiatric disorder coexist in the same individual.

Regardless of the term used, nobody can deny that, frequently, a single patient has two or more conditions, and there are even some indices to measure this^{1,2}. Classic aphorisms mention that “patients can have as many diseases as they damn well please”, as opposed to the saying “It is good clinical practice grouping all symptoms in a single diagnosis”, which, evidently, is no longer operational.

The number of associated conditions in a single patient varies with age; those older than 80 years can harbor 8 simultaneous diseases³.

Some reflections emerging from this association of diseases include that illnesses (what the patient effectively experiences) can be a combination of diseases (didactic artifice, reference construct) or of parts thereof;

each illness is unique, whereas diseases can be suffered by many people. On the other hand, comorbidity is not an arithmetic sum of diseases, i.e., if a patient has hypertension and diabetes, adding the knowledge on hypertension to that on diabetes is not enough, because reciprocal influences are many, not to mention interactions between the medications used to treat them.

When a patient has comorbid conditions, it is difficult to assign him/her to a specific specialty; in fact, hierarchization and prioritization is necessary. Nosological diagnosis alone is not valid anymore, but rather, more than ever, a comprehensive diagnosis has to be established.

Interactions between coexisting diseases can have different modalities. A first approach divides them into causal and casual. In the first case, a disease generates the other one (this is why the WHO has questioned the term comorbidities, since they can be stages of a single disease), or both have a common etiology, either direct or mediated by some additional factor, or else, they share some of the causes or risk factors. Causal relationships take place especially when coexisting diseases are highly prevalent and, therefore, it is not difficult for them to coincide in a single individual.

Currently, patient care demands being alert for comorbidities, establishing strategies to hierarchically organize them, considering reciprocal influences, prioritizing care, foreseeing interactions between treatments, looking for pathophysiological links between them and fully understanding the limitations of conventional nosology.

References

1. Charlson ME, Pompei P, Ales KL, MacKenzie CR. A new method of classifying prognostic comorbidity in longitudinal studies: development and validation. *J Chron Dis.* 1987;40(5):373-83.
2. Sharabiani MT, Aylin P, Bottle A. Systematic review of comorbidity indices for administrative data. *Med Care.* 2012;50(12):1109-18.
3. Barnett K, Mercer SW, Norbury M, Watt G, Wyke S, Guthrie B. Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross sectional study. *Lancet.* 2012;380(9836):37-43.

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