LETTER TO THE EDITOR

J.F. Dartigues, H. Amieva, Unité INSERM 897, Université Bordeaux Ségalen, Bordeaux 33076, France

COGNITIVE FRAILTY: RATIONAL AND DEFINITION FROM AN (I.A.N.A./I.A.G.G.) INTERNATIONAL CONSENSUS GROUP

Dear Editor,

In a recent paper published in one of the last issues of the Journal (1), Kelaiditi et al. propose a new clinical entity called "cognitive frailty". This entity is defined by the clinical association of a frailty syndrome according to the definition of Fried et al. (2) and an evidence of cognitive impairment without dementia characterized by the stage 0.5 of the Clinical Dementia Rating scale (3). This entity is supposed to define a cognitive impairment related to physical causes with a potential reversibility representing a useful target for secondary prevention of dependency in elderly people.

A new clinical entity is justified if it represents a real progress in the management of patients presenting such clinical entity, particularly if it can be used in the general population by health care providers, to develop detection and prevention of a major public health problem, such as dependency, one of the main adverse outcomes of frailty. Is it really the case?

Improved specificity in 1) prognosis, 2) pathophysiology or 3) treatment is necessary to justify the proposal of a new clinical entity. 1) From a prognostic point of view, the condition is verified since several papers have shown that cognitive impairment represented an added value for the prediction of adverse outcomes (death, hospitalization, dependency) in frail elderly subjects (4). 2) From a pathophysiological point of view, cognitive frailty (CF) is considered to be related to physical causes. However this relation is not yet validated particularly because the association is only considered at a given time without the notion of a temporal sequence (initial exposure to physical cause and then outcome of cognitive impairment). Moreover the pathological metabolic pathways implicated in CF are not clearly identified. 3) For the treatment of patients presenting the entity, there are not yet clear evidences for the efficacy of a specific treatment. Several randomized clinical trials are still ongoing.

A new clinical entity should be clearly defined and distinguishable from the previous entities defining cognitive impairment in elderly subjects. In this case, it would be particularly important to distinguish CF from Mild Cognitive Impairment (MCI), prodromal Alzheimer's Disease (AD) and Cognitive Impairment No Dementia (CIND). Is it really relevant to consider that MCI or CIND without three criteria of

physical frailty, but only one or two, are not CF? On the contrary, is it impossible that prodromal AD would be associated with physical frailty? All these points should be clarified.

A new clinical entity should have a non-ambiguous name. But is the term CF adequate from a semantic point of view? The adjective characterising the name "frailty" should be specific of the outcome of the entity. For instance, a patient with "cardiac frailty" is a patient who has a risk of developing adverse cardiac outcomes. This is not the case for CF, since the adverse outcomes that are expected are not cognitive outcomes (i.e. death, hospitalization, dependency).

A new clinical entity should have a well accepted name by the health care providers, the patients and their families. From this point of view, this entity represents a real progress compared to previous entities, and particularly the entity "prodromal AD". Dementia and AD represent two terms subject to fear and stigma. This is probably one of the major reasons for the lack of recourse to health care by elders with cognitive impairment in the general population. CF would be certainly far better accepted, because frailty leaves room for possible reversibility and calls for care and help. This new terminology could offer the opportunity to mobilise the Primary Care Practitioners and elders for a secondary prevention of consequences of aging. However a limit of the CF could be the diagnostic criteria which would be difficult to apply in primary care setting, since the CDR is too complex and almost impossible to be applied in this condition.

In conclusion, the CF entity could represent a real progress in the prevention of adverse outcomes of aging, but several critical points should be clarified before its application in the general population.

References

- Kelaiditi E, Cesari M, Canevelli M, et al. Cognitive frailty: rational and definition from an (I.a.N.a./i.a.g.g.) international consensus group. J Nutr Health Aging 2013;17:726-34.
- Fried LP, Tangen CM, Walston J, et al. Frailty in older adults: evidence for a phenotype. J Gerontol A Biol Sci Med Sci 2001;56:M146-56.
- Reisberg B. Alzheimer's disease. Stages of cognitive decline. Am J Nurs 1984;84:225-8.
- Avila-Funes JA, Amieva H, Barberger-Gateau P, et al. Cognitive impairment improves the predictive validity of the phenotype of frailty for adverse health outcomes: the three-city study. J Am Geriatr Soc 2009;57:453-61.