COMMENTARY

Cognitive Impairment: Where Are We?

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Special emphasis is placed these days on a functional-cognitive continuum that extends from strict normality to dementia, passing through an intermediate phase, with great difficulty in defining the limits between them.[1,2]

It is, perhaps, for this reason that different studies show that dementia is clearly under-diagnosed, particularly in the first phases of the illness.[3,4] In a study in Finland,[3] for example, less than half of the patients diagnosed with dementia had their diagnosis documented in the primary care (PC) medical records, and the diagnostic evaluations for reversible causes were inadequate. In the study by Cahill et al,[4] it concluded that Irish family doctors (GPs) had difficulty in diagnosing dementia and communicating this diagnosis to the patient. The under-diagnosisse has been associated with several causes[1]: patient factors, sociofamiliar situation, the diagnosis itself, and the health system. For these reasons, it is important to know how cognitive impairment (CI) is being dealt with by PC in our country. Little is known in this respect. The study presented in this issue of the Journal, "Initial Treatment of Patients With Subjective Memory Complaints and/or Cognitive Impairment in Primary Care: ISSEA Study" with at least 6 months of having symptoms is, therefore, timely and of great relevance. The first thing that stands out is "the mean time for the progression of symptoms at the start of the study, was 14.3±10.4 months." This time period could be due to the patients not having come to the clinic before, which would suggest that the cause of under-diagnosis would be the patient or a sociofamiliar reason, or it could have remained as a syndromic diagnosis, which would suggest factors in the diagnosis itself and the health system.

In the initial suspected diagnosis of the ISSEA study, there is a 30% diagnosis of dementia (syndromic plus

Key Points

- Dementia and cognitive impairment in general is underdiagnosed. It is important to know how it is being dealt with in our country, as well as the knowledge and attitudes of Spanish family doctors.
- Studies are needed that are directed at finding out the prevalence and incidence of cognitive impairment, the prognosis, the potentially reversible factors, and the reasons for the low detection, as well as strategies to improve this and its treatment in primary care.
- Mild cognitive impairment is an heterogeneous syndrome with no standardised criteria, and in constant evolution. Conceptualisation of the different subtypes is required.
- The treatment of cognitive impairment requires a systematic and structural assessment, with follow-up of the progression.

aetiological), almost 50% of them could be called intermediate phase, 17% age associated memory impairment (AAMI), 17% cognitive impairment (CI) (without specifying whether it was mild), 5% mild CI, 15% psychopathological disorders, 3% others, and 14% not stated. There was also 22% of changes in diagnosis during the 1 year follow-up (7% on two occasions). All this reflects the difficulty in diagnosing, the need for monitoring its evolution, as well as the importance of a differential diagnosis. In all the assumed diagnoses, the combination most used by the GP was the basic examination together with screening tests and laboratory tests, at acceptable levels. Although this could, at least partly, be due the effect of being feeling observed, it is an indication that GPs have a good training in this aspect. However, the tests carried out on the patients is low. As regards treatment, the fact that half received treatments of doubtful efficacy should serve as a warning about training in this field.

More studies like the study presented here are needed to look deeper into the approach and treatment of CI in our country, as well as studies directed at finding the reasons for the low detection of dementias in PC and of the knowledge and attitudes of Spanish GPs on dementia and CI in general. Population studies are also required to evaluate the prevalence and incidence of CI, its prognosis and the potentially reversible factors. It is imperative to promote an improvement in the detection and treatment of dementia in PC and to investigate strategies for this,[5] the available health care time and coordination between PC and specialised health services.

Intermediate State: What Are We Talking About? Mild Cognitive Impairment. A Return Journey

Different terms have been used to designate this "intermediate state"[1,2]: benign senile forgetfulness, age associated memory impairment, age associated CI, CI without dementia or doubtful dementia, much discussed terms, and currently in disuse.[1] Mild or slight cognitive impairment (MCI) currently is the term most accepted term, although it continues to be a concept under discussion and with some standardised criteria.

According to Gauthier et al,[2] MCI is a "syndrome," defined as a greater cognitive decline than that expected for the age and educational level of the individual, but does not markedly interfere with the activities of daily living, a similar definition to that made by the Spanish Society of Family and Community Medicine.[1]

Several studies that have used different definitions of MCI have shown a prevalence of between 3% and 19% in the general elderly population, and with an incidence of 8-58/1000/year and a risk of 11% to 33% of developing dementia at 2 years. On the other hand, findings in population based studies have shown that up to 44% of patients with MCI on their first visit return to normal one year later.[2] This demonstrates that there are many factors that can affect cognitive function in the elderly population, and apart from the neurodegenerative diseases, some of these are reversible.

The prognosis in terms of progression to dementia is more heterogeneous in population studies than in studies carried out in specialised clinics.[2] However, there is sufficient agreement in that more than half of the patients with MCI progress to dementia in 5 years, and that the amnesia sub-type of MCI has a high risk of progressing to Alzheimer's disease (AD).[1,2]

The symptoms and cognitive tests have been the nucleus of MCI until now. Initially, there were specific criteria to evaluate the memory deficit. These were then widened. An international work group on MCI in 2004 formulated criteria that helped to expand the construct of MCI, to include other cognitive domains besides memory and thus make it a possible podrome of multiple types of dementia. It is likely that future formulations of the definition of MCI may include non-cognitive symptoms, which could be important in the disease podromes such as frontotemporal dementia or Levy bodies dementia.[2] In terms of diagnostic criteria for research, there is uncertainty about whether an estimation of MCI as an entity or a split approximation, with several categories of this is preferred.[2]

We can see that different sub-types of MCI need to be conceptualised. Prospective cohort studies will help to clarify whether some of the sub-types of MCI are specific podromic stages of dementia and would prepare the ground to carry out earlier therapeutic interventions.[2] Likewise, the risk of progression to AD or other dementias

in MCI sub-types need to evaluated, as well as identifying the most predictive neuropsychological measurements of this progression time.[6] For example, patients with MCI with deficit of memory plus other cognitive domains would be more at risk than those that have pure amnesiac MCI. The presence of verbal memory deficit and psychomotor speed and ability in executive functions were strong predictors of progression to AD.[6]

Mild Cognitive Impairment: and in the Clinic?

This is a syndrome with a high incidence and prevalence, with no standard criteria, with many possible causes, some potentially reversible, multiple prodromes to dementia, with a high risk of progressing to dementia, where the monitoring of its progression is normally required for a correct diagnosis, where the diagnosis and early treatment are fundamental, as well as the presence of a reliable informant, etc.

Due to this heterogeneity, there is currently a debate on whether the term MCI should be used as an entity in clinical practice,[2] and we must always be careful of prematurely presenting MCI as a diagnosis of incipient dementia.[1,2]

In view of this complex situation, it requires a systematic and structured estimation, both to establish the diagnosis and to distinguish the underlying causes, and to monitor the changes in the time and response to treatment.

The recent publication of semFYC work group on dementias,[1] as well as in publications where the activities and the quality characteristics are defined, such as "the integrated health care process; dementia" by the Andalusian autonomous government (http://www.juntadeandalucia.es/salud/procesos) offers us invaluable help on how to make this assessment, beginning with the detection of suspected symptoms.

To improve this assessment, cognitive tests, specific for MCI, sensitive but "user friendly"[2] are needed, such as the Montreal Cognitive Assessment (available at http://www.mocatest.org).

It could be the time to review the current disease classifications to include specific diagnostic criteria for MCI ir its different sub-types.[2]

Guides and recommendations must be prepared to assist the doctor in the diagnosis of MCI, and in them subtypes and aetiologies should be identified, that help to understand the risk of turning into dementia and to treat the progression of the disease.

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