Dementia Prevalence in the Oldest Old

A Q&A WITH DR. UGO LUCCA

Why were you interested in the prevalence of dementia in the very old?

At the beginning of last decade, while I was working on a review of the Italian epidemiological literature on dementia, I realized that although most persons with dementia are oldest old, the over-eighties included in these studies were less than 20 percent of all the individuals investigated, even less than the individuals younger than 65. Not to mention the individuals aged 85 years and older who were about 5%.

A very similar, warped picture emerges also from the analysis of studies conducted around the world. Although reflecting the age structure of a Western adult population, this over-representation of the young-old and under-representation (or no representation at all) of the old-old does not reflect the population at risk. As a result, this age gap may be an important source of bias (for a discussion of this issue see: Schoenmaker and Van Gool. Lancet Neurol 2004;3:627-630). And in the near future this age gap will even widen, since individuals 80/85 years and older are the fastest growing segment of the elderly population. As pointed out by Carol Brayne, “in the context of prevention of dementia, age itself seems to have been avoided or ignored and therefore might be the ‘elephant in the room’” (p. 233; Nat Rev Neurosci 2007;8:233-239).

So, when we received, precisely in those years, a grant from the Italo Monzino Foundation for a field survey on dementia, we decided that we had to focus our research on this neglected yet key age group if we wanted to try to investigate more accurately the fundamental relationship between age and dementia.

What do these findings tell us about dementia?

The study of one of the largest (the largest?) representative population of the oldest old gave us the opportunity to estimate with more accuracy the frequency of dementia also in the extreme ages (more than 250 individuals aged 95-99 and more than 250 centenarians included), a cardinal age group to better understand the relationship between age and dementia. Although after age 85 prevalence of dementia does not double every five years (exponential growth), prevalence estimates continue to rise in a “linear” fashion and do not level off even in the extreme ages. At least as regards prevalence of dementia, it seems thus that the high risk associated with age is not reduced in very advanced ages.

From a public health viewpoint, our findings emphasize that dementia is a condition that primarily affects the very old (evidence almost always “forgotten”) by estimating the “proportion of young old and old old with dementia.”

What are implications for treatment?

Neuropathological substrates of cognitive deterioration change with age. With regard to pharmacological treatment, very few oldest old are included in clinical trials of putative antidementia drugs, and findings in the younger
old might not apply to the oldest old. There is therefore a problem, often eluded, of generalisability of the results. As we wrote at the end of the article, “individuals included in basic, clinical and epidemiological research on dementia need to appropriately reflect the population at risk if successful strategies to postpone cognitive decline and thus reduce the burden of dementia on the individual and society are to be developed.”

The picture is further complicated by the evidence that most elderly persons have multiple comorbidities and already take several drugs (including some with a detrimental effect on memory and cognition). Moreover, most of the costs of caring are borne by the patients’ families. Caregiving should thus be given due emphasis and, all things considered, healthcare resources should be reallocated in a more balanced, thoughtful way between caring and treatment. Taking into account the current and future number of oldest old with dementia, supporting prevention programs to try to reduce risk factors and promote healthy lifestyle would probably be a wise health policy choice.

**What findings, if any, were surprising to you? Please explain why and how you were surprised by them?**

Although, strictly speaking, it cannot be defined as a “surprise,” to find out that one in four persons 80 years and older and one in three persons 85 years and older suffers from dementia is at least disconcerting. It was a (welcome) surprise instead to discover that among the few population-based studies from different countries that “included at least 500 individuals 85 years and older, with at least 90 of them aged 95 years and older,” the estimates of dementia in the oldest old do not appear, as usually seen in reviews, “to fan out, whereas all age-specific estimates rise roughly parallel within a rather narrow range of differences.” This might suggest that when the number of the oldest old investigated is not too low, estimate differences among studies tend to restrict.