



Dementia: Hearing Loss May Contribute to Symptoms

ABSTRACT

Dementia and hearing loss are both prevalent in older people. Until relatively recently there was little appreciation of their possible interconnection in terms of cause, effect and relationship between the two conditions other than perhaps the dictum—“if you can’t hear it you can not remember it”. It has now become apparent that there is a more defined relationship in terms of possible causality or at least partial patho-physiological association which makes it more important to define hearing loss early on and address it as part of the strategy to decrease the risk of dementia.

KEYWORDS: Alzheimer’s disease, hearing loss, symptoms



Millions of dollars from the pharmaceutical industry have been invested in the quest to find medications that may prevent or decrease the progress of dementia-causing conditions, the most commonly recognized of which is Alzheimer’s disease.

Recently, another presumably promising medication was found to have no measurable benefit on those experiencing early or moderate dementia—a great disappointment to the public, to health-care practitioners, to those who funded the research and to the company responsible for manufacturing and testing the medication.

On the positive side is this recently published observation that mirrors previous studies: “The prevalence of dementia in the United States appears to be declining, according to research published in JAMA Neurology. Higher levels



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of education and better management of cardiovascular risk factors may have contributed to this improvement, although the mechanisms behind these factors are still unknown.”

This finding echoes studies from Europe and the United King-

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dom, which suggest, but do not prove, that certain lifestyle changes in the last few decades may be having a positive effect on the likelihood of developing dementia, possibly through the blood vessel (vascular) risk factor, which is one of the purported causes of dementia. A decrease in prevalence is statistically compatible with an increase in actual cases because of the aging of the population.

In the meantime, for the vast number of people who are concerned about developing dementia because of known family risk factors, what, if anything, can they do to decrease their risk, based on current understandings of the condition's progress?

The medications we use to

improve some of the symptoms of dementia (primarily cholinesterase inhibitors) do not appear to provide any benefit to those in the earliest stages of cognitive impairment (early symptoms such as forgetfulness), and are therefore not used to prevent or treat them.

But there are some ideas worth pursuing that may not make immediate sense, although there is a rationale for their study and implementation. One of them has to do with hearing ability rather than memory ability, although the two may be intimately related. With aging there is an increase in the likelihood of developing a decrease in hearing acuity—often people with the problem deny it or are unaware of it, despite friends and family pointing it out. Many people diagnosed with a hearing impairment refuse to wear any sort of amplification system for reasons including cost, inconvenience, or annoyance at the apparent intrusion or stigma that wearing a hearing aid may cause.

But there is now a growing body of evidence that hearing impairment may be another risk factor in the development of cognitive decline. At the minimum, hearing loss may make cognitive impairment more symptomatic than it might be with proper hearing amplification. I have patients with both cognitive impairment and hearing loss who are forgetful or ask the same questions repeatedly, and I



often tell them, “If you didn’t hear it, you can’t remember it.”

Numerous studies over the years have shown associations between hearing loss and the whole spectrum of cognitive impairment. The studies cover people living in nursing homes and in the community. It is

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important to determine categorically that a link exists so that people might be more readily convinced to seek hearing evaluation and proper amplification if required. Many organizations, including Johns Hopkins in Baltimore and the one at which I work, Baycrest Health Sciences in Toronto, are conducting ongoing research into the relationship between hearing loss and cognitive impairment, in addition to

providing clinical services to seniors with hearing loss.

Wherever you are, in recognition of Alzheimer Awareness Month this January, check out a reliable audiology department to have a proper hearing assessment, and seek the best professional advice you can get, whether or not you have symptoms of forgetfulness. If you are interested in participating in a research study, look into that at your local health-care centre or hospital-based audiology department.

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Further Reading

1. Lin, FR. et al. ‘Hearing loss and incident dementia’, *Archives of Neurology*, 2011, 68(2), 214-220.
2. Amieva, H. et al ‘Self-Reported Hearing Loss, Hearing Aids, and Cognitive Decline in Elderly Adults: A 25-Year Study’ *Journal of the American Geriatrics Soc.*, 2015, 63, NO. 10:2099–2104.
3. Pichora-Fuller, M. K. et al ‘Helping older people with cognitive decline communicate: Hearing aids as part of a broader rehabilitation approach.’ *Seminars in Hearing*, 34, 307-330.
4. <http://www.alzheimer.ca/en/nb/About-dementia/For-health-care-professionals/Screening-and-diagnosis/cognitive-and-hearing-loss>.



CLINICAL PEARL

Do not discount hearing loss as part of assessment of the range of cognitive impairment and dementia.

Look for appropriate strategies to address hearing loss in elders with early cognitive impairment who may shun standard hearing aids—use the simpler Pocketalker (R) which may fulfil the important goal of enhancing hearing and communication.

