EPIDEMIOLOGICAL ASPECTS OF DEMENTIA

Prof. G.Ch.Geraybeyli*, N.R.Hajiyeva, B.V.Salmanzade

Azerbaijan Medical University, Psychiatry Department, Baku

It is estimated that by 2050 the world population over the age of 60 will be 2 billion. Population ageing is occurring rapidly in LMIC. A clearly negative effect of rapid ageing of the population is the increase in the number of the people with dementia. Although dementia mainly affects older people, it is not a normal part of ageing.

According to different estimates, between 2% and 10% of all cases of dementia start before the age of 65. The prevalence doubles with every five-year increment in age after 65. The number of people globally who are living with dementia in 2011 is estimated to be 35.6 million, and epidemiological studies indicate that this number is expected to grow at an alarming rate. It is estimated that numbers will nearly double every 20 years, to 65.7 million in 2030 and 115.4 million in 2050. The majority of these people will be living in LMIC.

Dementia is one of the major causes of disability in later life. It accounts for 11.9% of the years lived with disability due to a non-communicable disease. It is the leading cause of dependency (i.e. need for care) and disability among older persons in both high-income countries and LMIC. The estimated worldwide cost of dementia is estimated to have been US\$ 604 billion in 2010. Direct medical care costs contribute to just 16% of the global cost. In low-income countries, most costs are due to informal care (i.e. unpaid care provided by family members and others).

There is a lack of awareness and understanding of dementia, at some level, in most countries. It is often considered to be a normal part of ageing or a condition for which nothing can be done. This affects people with dementia, their caregivers and families, and their support structure in a number of ways. Low awareness levels contribute to stigmatization and isolation. Poor understanding creates barriers to timely diagno-

sis and to accessing ongoing medical and social care, leading to a large gap in treatment.

No treatments are currently available to cure or even alter the progressive course of dementia, although numerous new therapies are being investigated in various stages of clinical trials. There is, however, much that can be offered to support and improve the lives of people with dementia and their caregivers and families. The principal goals for dementia care are:

- Early diagnosis
- Optimizing physical health, cognition, activity and well-being
- Detecting and treating behavioral and psychological symptoms
- Providing information and long-term support to caregivers.

In the majority of LMIC, and in some high-income countries, the growing prevalence and impact of dementia is not well understood. This is likely to be reflected in a lack of policy direction and program development and in inappropriate allocation of funding. It is obvious that dementia, its consequences and responses can no longer be neglected and that it is time that dementia is considered part of the public health agenda by all stakeholders. Chronic diseases are gradually gaining attention in the public health arena. In September 2011, the United Nations convened a summit on non-communicable diseases at which it adopted a "political declaration" which included the acknowledgement that "the global burden and threat of non-communicable diseases constitutes one of the major challenges for development in the twenty-first century" and the recognition that "mental and neurological disorders, including Alzheimer's disease, are an important cause of morbidity and contribute to the global non-communicable diseases burden".

In 2005, Alzheimer's Disease International

*e-mail: geraybeyli@psychiatry.az

(ADI) commissioned a panel of experts to review all available epidemiological data and reach a consensus estimate of prevalence in each of 14 world regions. The panel estimated 24.3 million people aged 60 years and over with dementia in 2001, 60% living in LMIC. Each year, 4.6 million new cases were predicted, with numbers affected nearly doubling every 20 years to reach 81.1 million by 2040. Incidence was estimated from prevalence and mortality. The estimates were provisional, due to limited data. Coverage was good in Europe, North America, and in developed Asia-Pacific countries. Studies from China and India were too few and estimates too variable to provide a consistent overview. There was a dearth of studies from Latin America, Africa, Eastern Europe, Russia and the Middle East, and a consequent reliance on the consensus judgments of the international expert panel. This supported a tendency, noted in the few LMIC studies available at that time, for the age-specific prevalence of dementia to be lower in developing countries than in developed ones.

The current estimates provide an indication of the numbers of people aged 60 years and over with dementia worldwide and in different world regions. There is much more uncertainty as to the prevalence of YOD but, if such cases were to be included, the total numbers affected might be up to 6-9% higher. The current estimates for the prevalence of dementia among those aged 60 years and over are approximately 10% higher than those from the earlier ADI Delphi consensus, accounted for by a higher age-standardized prevalence for South Asia, Western

Europe and Latin American regions. There is increases were partly offset by the lower estimated prevalence for East Asia. The new estimates are likely to be an improvement on those provided earlier, given the extension in the evidence base from LMIC. It was possible to include seven studies from South Asia, 52 from Western Europe, 34 from East Asia and 11 from Latin America in the regional meta-analyses. There was previously just one prevalence study available from Latin America. The evidence base from China was considerably extended by a recent systematic review that included data from publica-

tions previously available only in Chinese journals. The previous estimates for South Asia were perhaps disproportionately influenced by one large study, from rural Ballabgarh in northern India, which recorded an unusually low prevalence. Earlier estimates for Europe were strongly influenced by two previous reviews by the European Community Concerted Action on the Epidemiology and Prevention of Dementia Group. The current systematic review is much more comprehensive, and the new estimates coincide with the 7.1% prevalence derived from a recent systematic review by the EuroCoDe group.

Data was insufficient for certain regions, particularly Eastern Europe, North Africa, Russia, the Middle East, and sub-Saharan Africa. As such, the estimates must still be considered provisional. The current estimates have drawn on previous Delphi consensus estimates for these regions. A limitation of this review could be using two methodologies to quantify prevalence estimates for different GBD regions, i.e. meta-analysis for 11 out of 21 regions where sufficient studies were available and for others, use of relevant estimates from the Delphi consensus. Meta-analysis methods that allow estimates for regions without data by borrowing strength from those with data would allow updated estimates for all regions. This also emphasizes the need of more data of good quality for the GBD regions where sufficient studies were not available.

The low prevalence for sub-Saharan Africa are mainly determined by the one good-quality study (Ibadan, Nigeria) that was available when the review was conducted in 2009. Subsequent studies from francophone countries in western and central Africa, and one further study from northern Nigeria suggest a more variable prevalence, higher in urban than in rural sites, and higher in central compared with western Africa. The Nigerian study recorded a low prevalence that is consistent with findings from the earlier USA/ Nigeria study. Prevalence was similarly low in rural Benin. The prevalence in urban Benin was higher and that recorded in cities in the Central African Republic and the Republic of the Congo was substantially higher.

Current evidence therefore challenges the pre-

vious consensus that the prevalence of dementia was lower in LMIC, and strikingly so in some studies. Methodological factors may be implicated. In the 10/66 Dementia Research Group studies, the groups 10/66 dementia diagnosis - developed, calibrated and validated in a 26-site pilot study - was both more prevalent than according to DSM-IV criteria, and more consistent between sites. The prevalence of DSM-IV dementia was particularly low in rural and less developed sites. It may be that milder dementia is under-detected in LMIC because of low awareness, high levels of support routinely provided to older people, and reluctance to report failing to outsiders, which could all contribute to difficulties in establishing the DSM-IV criterion of social and occupational impairment. In Cuba, the criterion validity of the 10/66 diagnosis was superior to that of DSM-IV which selectively missed mild and moderate cases. In India, the predictive validity of the 10/66 diagnosis was supported by high mortality after three years of follow-up, with survivors showing expected progression of cognitive impairment, disability and needs for care, this suggested that the true prevalence at baseline was likely to be much closer to the 7.5% recorded for 10/66 dementia than the 0.9% prevalence according to DSM-IV criteria.

The four commonest subtypes in order of frequency are Alzheimer's disease, vascular dementia, dementia with Lewy bodies, and frontotemporal dementia. Estimates of the proportion of dementia cases attributable to each of these must be interpreted with caution since there are clinical diagnoses based on typical patterns of onset and course. It is difficult, particularly in epi-

demiological studies, to gather all the necessary information for accurate subtype diagnosis. Neuroimaging biomarkers are routinely available for cerebrovascular disease, but imaging of amyloid plaques has only recently become available as a research technique. Evidence from neuropathological studies challenges the notion of discrete subtypes. Mixed pathologies are much more common than "pure" ones - particularly for Alzheimer's disease and vascular dementia, and Alzheimer's disease and dementia with Lewy bodies. In one case series of over 1000 post mortems, while 86% of all those with dementia had pathology related to Alzheimer's disease, only 43% had pure Alzheimer's disease, 26% had mixed Alzheimer's disease and cerebrovascular pathology, and 10% had Alzheimer's disease with cortical Lewy bodies. Findings were similar for those who had been given a clinical diagnosis of Alzheimer's disease: "pure" vascular dementia was comparatively rare, and uncommon subtypes of dementia, including FTD, tended to be misdiagnosed in life as Alzheimer's disease. Furthermore, the relationship between Alzheimer's disease neuropathology and dementia syndrome is less clear-cut than previously thought. Some individuals with advanced pathology do not develop dementia, and cerebrovascular disease may be an important co-factor determining dementia onset. Therefore, estimates of the proportion of cases accounted for by Alzheimer's disease, vascular dementia, mixed dementia, dementia with Lewy bodies, frontotemporal dementia and other dementias represent, at best, the relative prominence of these different pathologies.

РЕЗЮМЕ

ЭПИДЕМИОЛОГИЧЕСКИЕ АСПЕКТЫ ДЕМЕНЦИИ

Проф. Герайбейли Г.Ч., Гаджиева Н.Р., Салманзаде Б.В

Азербайджанский Медицинский Университет, Кафедра Психиатрии, Баку

Население долгожителей, или люди в возрасте от 85 лет и старше, быстро растет. Таким образом, очевидно увеличения национального и мирового значения деменции в этой группе населения. В этом обзоре мы опишем основные эпидемиологические исследования, распространенность деменции у пожилых людей. Распространенность деменции среди лиц в возрасте 65 + составляет от 2 до 10%. А так же по подсчетам число болеющих возрастет к 2050 году до 115 400 000. Однако могут быть предложены мероприятия для поддержки и улучшения

жизни людей с деменцией и их опекунов и семей. Основными целями для оказания помощи при деменции являются: Ранняя диагностика, Оптимизация физического здоровья, познания, деятельности и благосостояния, Выявление и лечение поведенческих и психологических симптомов, Предоставление информации и долгосрочная поддержка воспитателям. Факторы риска развития деменции у долгожителей включает низкий уровень образования, плохой уровень жизни и общее состояние здоровья, низкий уровень физической активности, депрессия, и артериальная гипертензия, гиперлипидемия. Низкий уровень осведомленности способствуют стигматизации и изоляции. Плохое понимание создает препятствия для своевременной диагностики и для доступа к текущей медицинской и социальной помощи.

XÜLASƏ

DEMENSİYANIN EPİDEMİOLOJİ ASPEKTLƏRİ

Prof. Gəraybəyli G.Ç., Hacıyeva N.R., Salmanzadə B.V

Azərbaycan Tibb Universiteti Psixiatriya Kafedrası, Bakı

Uzunömürlülərin və ya 85 yaşa çatmış əhəlinin sayının getdikcə artması müşahidə olunur. Bununla da bu qrup əhali arasında demensiyanın milli və ümumdünya əhəmiyyəti artır. Bu məqalədə biz epidemioloji tədqiqatları, əsasən yaşlı insanlar arasında aparmışıq. Demensiyanın yayılma səviyyəsi 65 yaşda 2-10% təşkil edir. Həmçinin hesablamalar xəstələrin sayının 2050-ci ilə 115 400 000 nəfərə qədər artacağını göstərir. Ancaq demensiyalı xəstələr, onların ailə üzvləri və qəyyumları üçün dəstək və həyat şəraitinin yaxşılaşdırılması istiqamətində tədbirlər planı hazırlana bilər. Demensiya zamanı yardımın əsas məqsədlərinə erkən diaqnostika, fiziki sağlamlıq, davranış və psixoloji simptomların azaldılması, müalicəsi, informasiya və tərbiyəçilərə uzunmüddətli dəstək aiddir. Uzunömürlülərdə demensiyanın inkişafının risk amillərinə təhsil və həyat səviyyəsinin, ümumi sağlamlıq vəziyyətinin, fiziki fəallığın aşağı səviyyədə olması, depressiya, arterial hipertoniya, hiperlipidemiya aid edilir. Düzgün qiymətləndirilməmə vaxtında diaqnostika, tibbi və sosial yardım üçün maneələr yaradır.

Müalicəvi yanaşmalar sonrakı tədqiqatları tələb edir, belə ki çox yaşlı xəstələrdə daha gənc xəstələrlə müqayisədə əlavə təsirlərə meyllik çox qeyd oluna bilər. Beləliklə, son illərdə bizim uzunömürlülərdə demensiya anlayışlarımız irəlilədi. Buna baxmayaraq, xüsusilə müxtəlif etnik və ictimai-iqtisadi qruplar arasında, həmçinin biomarkerlər barəsində əlavə tədqiqatların aparılmasına ehtiyac duyulur.