BPSD: BEHAVIORAL AND PSYCHOLOGICAL SYMPTOMS OF DEMENTIA. A GERIATRIC APPROACH

Dr Gary Sinoff, MD, PhD

Cognitive Clinic, Department of Geriatrics, Carmel Medical Center
Faculty of Medicine, Technion Institute and
Department of Gerontology, University of Haifa
Haifa, Israel.

The world has undergone changes in its demographic characteristics particularly over the last century and the prediction is by 2050, the world's population will have reached almost 10 billion. Almost all of the growth is predicted to occur in the less developed countries (LDC) with the population expected to enlarge from 5.3 billion in 2004 to 7.8 billion by 2050 (WHO, 2005). The ageing of the population has also had a major effect on the health expenditures with 9.8% of the gross domestic product (GDP) being spent on health care in 1995 and continuing to rise all the time (Mayhew, 2000). The inversion of the population pyramid will produce a greater percentage of the general population being elderly over 65 and especially over 80 years. In the more developed countries (MDC), the percentage of elderly over 65 has reached 15-20% but only 6.5% in LDC but this will be the next major challenge for the LDCs as their population ages.

Accompanying the rise in the absolute numbers and in the life expectancy is the increase in the number of elderly suffering from dementia. As a result, dementia has become and will continue to be a major burden in modern medicine for the whole world. The number of person suffering from dementia is around 35 million and by 2050 is predicted to reach 106 million persons, particularly in LDC of Asia and Africa. In addition to the loss of memory and loss of function, the major problem which caregivers, both formal and informal, need to relate to are BPSD (Behavioral and Psychological Symptoms of Dementia). The literature reports that 90% of demented persons have some form of BPSD causing distress to all who care for them.

Jost and Grossberg (1996) showed that often the patient presents up to 40 months prior to diagnosis of dementia with some sort of BPSD, usually beginning with social withdrawal. This phenomenon of BPSD can be explained somewhat by an imbalance in the neurotransmitters in the brain. The end result of BPSD for the caregivers is the increased burden of care. In fact, the family will often turn for professional help because of the behavioral and psychological problems rather than the decrease in cognitive abilities (Machnick, 2009).

The approach to BPSD is first to understand the phenomenon, then to decide on a treatment plan, both non-pharmacological and pharmacological, by relating to each component of the BPSD problem. Only by having a structured understanding of BPSD will the treatment be effective. In some studies, it was shown that treatment of BPSD was ineffective in behaviors such as hoarding, vocal repetition, and others (Schneider et al. 2005; Wang et al. 2005, Brodaty et al. 2003). Therefore the basis for any treatment program is first to relate to the non-pharmacological aspects using a structured framework relating to a physical problem or discomfort, intellectual/cognitive changes, emotional, capabilities, environment and social aspects of care. The multidisciplinary team needs to understand this side of the treatment since the BPSD may be a reaction to some "trigger" event which could be prevented.

Pharmacological treatment is both complex and controversial. Universally neuroleptics have been used, especially during delirious phase, but the controversy still rages with regard to the side effects of increased cardiovascular adverse events (Schneider 2005). Other medications, such as mood stabilizers, anti-anxiolytic medication, anti depressants and others have been used with some success and less serious side effects but as stated some behaviours do not react to pharmacological intervention. However, the basis for successful treatment of BPSD is always to relate to the question: "How would I deal with this behavior if this person were a 3-5 year old child?"

References

1. Brodaty H, Ames D, Snowdon J, et al. A randomized placebo-controlled trial of risperidone for the treatment of aggression, agitation, and psychosis of dementia. J Clin Psychiatry. 2003; 64(2): 134-43.
2. Jost BC, Grossberg GT. The evolution of psychiatric symptoms in Alzheimer's disease: a natural history study. J Am Geriatr Soc. 1996; 44:1078-1081.
3. Machnik G, Allegri RF, Dillon C, Serrano CM, Taragano FE. Cognitive, functional and behavioral factors associated with the burden of caring for geriatric patients with cognitive impairment or depression: evidence from a South American sample Int J of Geriatric Psych. 2009;24(4), 382-389.
4. Mayhew, L.D. (2000). Health and Elderly Care Expenditure in an Aging World. IIASA Research Report RR-00-021. Retrieved February 20, 2012 from ILASA (International Institute for Applied Systems Analysis) Web site: http://www.iiasa.ac.at/Admin/PUB/Documents/RR-00-021.pdf
5. Schneider LS, Dagerman KS, Insel P. Risk of Death with Atypical Antipsychotic Drug Treatment for Dementia: Meta-Analysis of Randomized Placebo-Controlled Trials. JAMA. 2005;294(15):1934-43
6. Wang PS, Schneeweiss S, Avorn J, et al. Risk of death in elderly users of conventional vs. atypical antipsychotic medications. New Engl J Med. 2005;353(22): 2335-41.
7. World Health Organization (WHO). (2005). The Global Burden of Disease. 2004 Update. World Health Organization, Geneva.