PAIN IN PEOPLE WITH DEMENTIA

Law Wai Yan (Physiotherapist)

Introduction

There are an estimated more than one hundred thousand of people with dementia (PWD) in Hong Kong, of whom 60% experience pain.[1] PWD are at risk of unrecognized and undertreated pain.[2] Due to their reduced cognitive capacity and loss of communication ability, PWD often express pain or discomfort non-verbally through facial expressions, body movements or behavioral disturbances. And, therefore, pain-related behavioural symptoms are often misinterpreted as behavioral and psychological symptoms of dementia (BPSD).

The etiology of BPSD is considered to be multifactorial. BPSD such as agitation, aggression, irritability, sleep or appetite changes, depression and apathy, as well as hallucinations are commonly affecting 90% of PWD. [3] In particular, pain is one of the important contributing factors of BPSD.[4] Although how pain and pain-related disruptive behaviors co-occur is still unclear, evidence showed that pain is positively correlated with some types of BPSD such as aggression, agitation and depression.[5] Pain-related disruptive behaviors in PWD would be a form of help-seeking manifestation. BPSD is an expression of unmet need that may include physical needs (commonly known as pain or discomfort), social needs (for example: social contact or support) and environmental needs (for example: the need for freedom or quiet).[6] These pain-related disruptive behaviors will escalate if the unmet needs of PWD has not been appropriately fulfilled or taken care. Poor management of BPSD would not only exacerbate the progression of dementia but also affect their morbidity, quality of life, hospitalization as well as morality.

Management of BPSD

The traditional management of BPSD has primarily relied on methods of psychotropic medications or physical restraints. Pain-related behavioral disturbances are commonly treated as BPSD, leading to inappropriate prescription of psychotropic medicines; which have been associated with impaired cognition, falls and fractures and increased risk of death.[7] In addition, physical restraints are widely used for the safety sake of PWD such as wandering and getting lost, harming themselves or others. However, physical restraints are associated with the adverse impacts on PWD; these are functional decline, pressure sores, contracture, muscle atrophy, infections, agitation, social isolation, psychiatric morbidity, length of hospital stay, serious injuries and death.[8,9] Restraint-free care has been advocated with respect to physical and psychological health of PWD, legal and ethical considerations.

There is growing evidence to support that pain interventions and non-pharmacological approaches are the first-line strategies prior to the initiation of any psychotropic drug in management of BPSD.[10,11] For the pain interventions, tailored and stepped-treatment of acetaminophen or opioids, are effective in reducing agitation and aggression in PWD.[12] In addition, the non-pharmacological interventions such as therapeutic exercises, music therapy, and multimodal cognitive-behavioral therapies, yield some promising outcomes in reducing both pain and disruptive behaviours.[13]

Management of BPSD requires understanding of the complex intertwining relationships of pathological, psychological, interpersonal, social and environmental factors. It is recognized presently that a critical factor in the effective management of BPSD is pain management.[14]

Challenge and way forward

World Health Organization (2012) recognizes dementia as a public health priority; in which advocates that dementia should be early diagnosed and optimal care should be provided to PWD and their caregivers. Yet, the evidence presented on pain management in PWD demonstrates the severe lack of effective assessment and treatment across the range of clinical settings. [14]

Multidiscipline pain management approach is recommended to enhance service quality in dementia care. [15] The primary causes of pain in nursing home residents in dementia are musculoskeletal disorders, such as rheumatic disorders, arthritis, osteoporosis and fracture.[16] Therapeutic exercise or physical activity is recommended, not only relieving pain, but also improving cognitive function and functional status in people with osteoarthritis. Although physiotherapists have emerged the significant roles in settings providing services to non-dementia patients with musculoskeletal disorders,[17] the physiotherapy health service is under-utilized to match with the health care needs of PWD. Multidisciplinary engagement would facilitate the development of an innovative and eminence dementia care management.

Reference

1. Miu DKY & Chan KC. Under-detection of pain in elderly nursing home residents with moderate to severe dementia. *Journal of Clinical Gerontology & Geriatrics* 2014; 5: 23-27.
2. Tosato M, Lukas A, van der Roest HG, et al. Association of pain with behavioral and psychiatric symptoms among nursing home residents with cognitive impairment: results from the SHELTER study. Pain. 2012; 153(2):305–310.

3. Cerejeira J, Lagarto L, Mukaetova-Ladinska EB. Behavioral and Psychological Symptoms of Dementia. *Front Neurol*. 2012; 3: 73.
4. Corbett A, Husebo B, Malcangio M, et al. **Assessment and treatment of pain in people with dementia.** *Nat Rev Neurol*. 2012; 8(5): 264-274.
5. Ahn H, and Ann H. The relationship between pain and disruptive behaviors in nursing home resident with dementia. *BMC geriatrics* 2013; 13(1): 14.
6. Cohen-Mansfield J. Nonpharmacologic treatment of behavioral disorders in dementia. *Curr Treat Options Neurol*. 2013; *15*: 765-785.
7. Hartikainen S, Lonnroos E, Louhivuori K. Medication as a risk factor for falls: critical systematic review. *J Gerontol A Biol Sci Med Sci* 2007;62:1172–81.
8. Scherder E, Herr K, Pickering G, et al. Pain in dementia. *Pain* 2009;145:276–278.
9. Kwok T, et al. Effect of Physical Restraint Reduction on Older Patients' Hospital Length of Stay. *Journal of the American Medical Directors Association* 2012;13(7): 645-650.
10. Dewing J. Responding to agitation in people with dementia. *Nurs Older People*. 2010; 22(6): 18-25.
11. Husebo BS, Ballard C, Fritze F, Sandvik R, Aarsland D. Efficacy of pain treatment on mood syndrome in patients with dementia: a randomised clinical trial. *Int J Geriatr Psychiatry*. 2014; 29(2):828-836.
12. Pieper MJ, van Dalen-Kok AH, Francke AL, et al. Interventions targeting pain or behaviour in dementia: a systematic review. Ageing Res Rev. 2013; 12(4):1042–1055.
13. Husebo BS, Ballard C, Aarsland D. Pain treatment of agitation in patients with dementia: a systematic review. *Int J Geriatr Psychiatry*. 2011; 26(10):1012-1018.
14. Achterberg WP, Pieper MJ, van Dalen-Kok AH, et al. Pain management in patients with dementia. *Clin Interv Aging*. 2013; 8:1471-1482.
15. Corbett A, Husebo BS, Achterberg WP, Aarsland D, Erdal A, Flo E. The importance of pain management in older people with dementia. *Br Med Bull*. 2014; 111(1):139-148.
16. Haasum Y, Fastbom J, Fratiglioni L, Kareholt I, Johnell K. Pain treatment in elderly persons with and without dementia: a population-based study of institutionalized and home-dwelling elderly. *Drugs Aging*. 2011; 28(4): 283–293.
17. Desmeules F, Roy JS, MacDermid JC, Champagne F, Hinse O, Woodhouse LJ. Advanced practice physiotherapy in patients with musculoskeletal disorders: a systematic review. *BMC Musculoskelet Disorders*. 2012; 13: 107. doi: 10.1186/1471-2474-13-107.