

# Alberta Doctors' Digest

## Treat pain to resolve aggression in patients with dementia

Patients with dementia commonly exhibit aggression and this can be challenging to manage. Assessment for underlying pain then analgesic therapy may improve these behavioral symptoms.

### Case

Mrs. J. is a 97-year-old woman with a new diagnosis of dementia. She has been admitted to a long-term care (LTC) facility due to her frailty and functional decline at home. Prior to her decline in health and function, she was very active. Her past medical history is significant for osteoarthritis, hypertension and atrial fibrillation. On admission to the LTC facility, her issues were restlessness and agitation resulting in multiple hospital admissions.

### Background

Aggression is a common occurrence in patients with dementia. It puts patients at high risk for poor health outcomes significantly affecting quality of life.<sup>1</sup> Quality of life is a difficult concept to define and even more difficult to quantify. In an Alberta Long Term Care Family Experience Survey, 33% of respondents (LTC residents) reported their quality of life as average and 40% identified it as poor.<sup>4</sup> Defining quality of care in the LTC setting is complex, considering the many co-morbidities and confounding health issues on a background of dementia. However, one quality of life indicator that is relatively straightforward is pain measurement. It can affect patient level of comfort, dignity and functional competence.

Pain is common among the elderly due to the increased prevalence of age-related diseases such as osteoporosis and arthritis.<sup>3</sup> Due to the changed perception of pain and change in language skills in dementia, pain can be underreported. In these patients, pain is often reported by health care providers/caregivers as challenging behaviors, notably agitation or withdrawal, and is classified as a neuropsychiatric symptom (NPS). NPSs include depressive symptoms, agitated/aggressive behavior and psychotic symptoms like hallucinations and delusions. NPSs are prevalent in about 80-85% of patients with dementia.<sup>3</sup>

Pain affects physical function, such as sleep, nutrition and mobility. Physical inactivity in patients with dementia may not only be a sign of pain but can in itself also be a cause of pain and disability. Due to the diverse presentation, it is difficult to interpret the signs of pain in dementia. This is reported in most studies as under-recognition of pain and can result in under-treatment.<sup>3</sup>



Proper assessment of pain is a prerequisite for appropriate treatment of aggression. Photo credit: Unsplash.com

### **Pain and neuropsychiatric symptoms**

A systemic review published in the *BMC Geriatrics* by van Dalen-Kok , et al.<sup>3</sup> reported an association between pain and depression with pain and agitation. Morgan et al. found that depression indirectly predicted the onset of aggression due to unmanaged pain.<sup>3</sup>

Aggression is defined as a physical or verbal behavior that may harm others. This includes behaviors such as hitting, kicking and screaming. About 50% of people diagnosed with dementia exhibit aggression which results in rapid cognitive decline, increased risk of abuse and caregiver burden.<sup>2</sup> Identification and addressing unmet needs, such as physical or emotional pain can go a long way to managing these behaviors. Behavioral logs are often helpful in identifying triggers in the physical or social environment. The challenge in dementia is recognizing the presence of pain.

### **Recognizing pain in persons with dementia**

It is important to be aware of specific behaviors such as increased wandering or irritability, abnormal facial expressions, body movements and vocalizations.<sup>3</sup> Awareness of these behaviors can be extremely helpful in the clinical decision-making process.

Even though in the last few decades, pain measurement and assessment have been extensively studied, clinicians still have insufficient tools to confidently diagnose and manage chronic pain in this vulnerable population. Validated tools such as the Pain Assessment in Advanced Dementia (PAINAD), Pain Assessment Checklist for Seniors with Limited Ability to Communicate (PACSLAC), DOLOPLUS, and the Mobilization-Observation-Behaviour-Intensity-Dementia-2 (MOBID-2) are based on observations and are increasingly being used to assess and manage pain in persons with dementia. The verbal rating scale and verbal descriptive scale are also used to measure pain and can contain mechanisms for self-reporting. Appropriate and consistent use of any of these measurement instruments is of utmost importance in the management of pain.<sup>3</sup>

### **Pain management in dementia**

With deteriorating cognitive function, persons with dementia are less likely to verbally report pain. The suffering can sometimes manifest as aggressive behaviors. Due to the inability of health providers to assess and manage pain in older adults with dementia, they are more likely to receive antipsychotic drugs which could then result in adverse side effects like falls, increased somnolence and even death.

Untreated pain can result in depression.<sup>3</sup> In a study involving a small number of patients with moderate-to-severe dementia, patients with challenging behaviors showed a noticeable improvement in mood and function when pain was well managed.<sup>3</sup> Another study among the elderly without cognitive impairment showed that treatment of depression resulted in improvement in pain and physical function.<sup>3</sup> This is not surprising as the pathways of pain and depression in the brain are connected.

Proper assessment of pain is a prerequisite for appropriate treatment and underscores the need to use validated observational pain assessment tools to document the presence and response of pain to treatment.<sup>2</sup>

### **Back to the case**

On clinical exam, Mrs. J. had marked tenderness behind her right knee. X-rays revealed severe osteoarthritis and an ultrasound of her knee showed a complicated Baker's cyst. She had steroid knee injections and within a few days, her aggressive behaviors settled down. A few months later, as the effects of the injections started to wear off, her aggression started to resurface. By this time, we were doing regular pain assessments using PAINAD. The PAINAD is a relatively easy tool to use in advanced dementia. It scores on breathing, vocalization, facial expression, body language and consolability. Progression of dementia causes diminished pain behaviors; however, facial expressions tend to increase.<sup>3</sup>

Since her pain scores were consistently 7-8/10 we decided to start her on regular scheduled analgesia of a low-dose Butrans patch, which is considered safe in the elderly. She tolerated the patch well. This was in conjunction with non-pharmacologic measures and round-the-clock caregiver support. Through these measures, she became less agitated and quality of life was improved.

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References available upon request. Banner photo credit: Pixabay.com