Pain and Alzheimer dementia: A largely unrecognized problem

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Pain often goes unrecognized in patients with Alzheimer dementia (AD). As AD progresses, the ability to communicate progressively deteriorates, which means that it becomes increasingly difficult for the individual to verbalize discomfort or pain. One of the most common causes of pain in those with AD is arthritis. Among individuals age 65 and older, 50% report diagnosed arthritis—a leading cause of functional decline in older patients. When an older person becomes dependent on someone else to manage his or her medications, the caregiver may be unaware that the individual is experiencing significant arthritic pain, potentially affecting multiple joints in the body.

When the caregiver attempts to transfer an individual with AD who also has arthritis, the person’s first response may be to lash out physically and/or verbally. Other common responses to pain include crying out, refusing to eat, and resisting care. The caregivers of those with AD living at home are often faced with these challenging behaviors. They may plead with the primary care provider to “do something” to calm their loved one; this frequently means prescribing an antipsychotic medication, not an analgesic.

Behavioral and psychological symptoms of dementia are common. Difficult-to-manage behaviors may include aggression and violent or socially inappropriate actions that challenge the management skills of families, caregivers, and nurses. We need to consider that perhaps the behaviors that are being targeted with antipsychotic medications reflect unmanaged pain rather than a psychotic outburst. This may occur when the individual with AD deteriorates to the point that he or she is left with only aggressive means to stop a caregiver’s actions that are causing pain.

**Pain assessment in the AD population**

Pain is an abstraction and requires a higher level of functioning to be able to identify it. As the person with AD deteriorates, the ability to verbally communicate pain disappears. The individual may respond by crying, biting, hitting, kicking, or other aggressive acts that are directed toward stopping pain caused by bathing, toileting, assisting out of bed, and other activities that might cause and/or increase pain. If the caregiver isn’t sensitive to the signs of pain, such as grimacing, moaning, and pulling or pushing away from the caregiver, the most likely intervention will be the use of antipsychotic medications.

Quantifying pain in someone who can’t report the pain presents a challenge to both professional and family caregivers. There are several easy-to-use and interpret pain scales that are designed to be used for patients with AD.

- **The Pain Assessment in Advanced Dementia, or PAINAD, Scale** uses breathing independent of vocalization, negative vocalization, facial expression, body language, and consolability to score pain from 0 to 10 points: 1 to 3, mild pain; 4 to 6, moderate pain; 7 to 10, severe pain (https://www.healthcare.uiowa.edu/igec/tools/pain/PAINAD.pdf).

- **The Abbey Pain Scale** is an alternate scale that uses vocalization, facial expression, body language, behavior changes, and physiologic changes to measure pain in patients with dementia who can’t verbalize their pain experience (http://www.apsoc.org.au/PDF/Publications/4_Abbey_Pain_Scale.pdf).
**Medicating end-stage pain**

One of the challenges facing family and professional caregivers of patients with end-stage AD is managing their pain. Acetaminophen can be safely used in this population. Although nonsteroidal anti-inflammatory drugs (NSAIDs) often work well for these patients, clinicians should be aware that these drugs have various adverse reactions (kidneys, BP, and gastrointestinal). Additionally, it’s important for clinicians to know that NSAIDs have a low ceiling effect (giving more of the drug above a certain dosage doesn’t result in more pain relief).

Opioids, such as morphine, have no ceiling effect and have been shown to relieve all types of pain. They may be underused in the geriatric population; yet, they may be safer than other drug strategies that are employed. However, clinicians should be aware that opioids may increase confusion, constipation, and the risk of falls.

The fentanyl transdermal patch may be helpful for patients who are unable to swallow pills. However, because of the drug’s extreme potency and the potential for overdose, it shouldn’t be used in older patients who are opioid-naive (haven’t taken opioids before) or for those who are unaccustomed to the respiratory depression caused by opioids.

Finally, tramadol may be useful. Tramadol rarely causes respiratory depression; however, it can be addictive and has many interactions with other medications, especially antidepressants, which increase the risk of serotonin syndrome. The risk of seizures is also increased with the use of tramadol.

**Nursing interventions**

In addition to appropriate analgesic intervention, the following nursing activities can play an adjunctive, yet vital, role in pain management:

- speaking soothingly to the patient
- offering gentle massage to ease the discomfort of tight muscles
- repositioning the patient for comfort
- administering pain medication that’s adequate in strength and offered at a regular frequency to control pain
- providing the patient with a comfort item, such as a stuffed toy, to hold
- offering reassurance.

Nurses and geriatric nursing assistants (GNAs) must consider ways to modify the usual bathing routine when caring for a patient with chronic pain. For example, warm the bathing room before bringing the patient to the area or use heated towels to diminish pain in arthritic joints when drying the patient during a bed bath. These methods are generally simple to implement, efficient, and cost-effective. Often, these strategies are also effective from a time management standpoint because a patient who’s more comfortable ultimately takes less nursing and GNA time at each interaction.

**Complementary and alternative therapies**

Alternative therapies, such as therapeutic touch, Reiki, and gentle massage, are well supported in the literature as bringing increased comfort and a state of relaxation to older patients experiencing pain. One study noted positive outcomes when using alternative therapies in the evening to decrease disturbing behaviors and avoid overmedication. The authors recognized the need to advocate for patients by using less medication. They noted advocacy can be in the form of referrals to social work, therapy, and spiritual support, and promotion of complementary and alternative therapies. A need for more staff education on the appropriate use of complementary and alternative therapies was highlighted.

For patients with mild dementia, distraction from pain can be achieved by games or art therapy sessions. These interventions are carried out primarily by professionals on the interdisciplinary team, such as activity or recreational therapists, occupational therapists, or expressive arts therapists.

**Quality care free from pain**

Pain in patients with AD is frequently missed and incorrectly identified as agitated and/or aggressive behavior that requires the administration of an antipsychotic or antianxiety medication. These
A 77-year-old widowed, White female lives alone in an assisted living apartment. She has no children. She receives home care visits from an RN once a week related to her diagnoses of moderate AD; chronic major depression; moderate-to-severe anxiety; atrial fibrillation; and chronic low back pain, bilateral knee pain, and right wrist pain. She had a right wrist fracture following a fall in the community 6 months ago. The patient’s primary support is her 72-year-old sister, who has limitations due to anxiety and depression, as well as several chronic physical conditions.

**Medical history**
- History of atrial fibrillation; stable on warfarin
- History of chronic depression and anxiety managed by outpatient psychiatric treatment for the past 3 years; no psychiatric treatment before 3 years ago; one prior psychiatric hospitalization 3 years ago
- History of degenerative disc disease; bilateral knee replacements 10 years ago; right wrist fracture 6 months ago

**Medications**
- Warfarin, 5 mg once a day at 6 pm
- Mirtazapine, 30 mg, every night at bedtime
- Quetiapine, 25 mg, every night at bedtime
- Alprazolam, 0.25 mg, twice a day as needed
- Acetaminophen, 325 mg, 2 tabs twice a day as needed

The patient’s medications are managed by a home care GNA. The standing medications are preloaded monthly into the medication dispensing system. This system prevents the patient from disturbing the medications, such as taking too many or too few medications, taking medications at the wrong time, or missing doses.

**Recent behaviors**
The patient has become increasingly agitated and disruptive to neighbors, knocking on their doors needing support due to confusion and paranoia. She often complains of depression and pain to her neighbors, and is eating poorly at mealtime with other residents. The patient is increasing suspicious/paranoid, believing that her sister and neighbors are stealing her money. She isn’t sleeping well at night, taking intermittent, brief naps during the afternoon and awakening increasingly confused. Recently, her confusion and agitation has prevented her from attending her usual senior center activities scheduled 5 days per week.

Today, the patient demonstrated facial grimacing and increased agitation when being examined by the RN. She yelled out and moaned when the RN attempted to transfer her from the chair to the shower. The patient kicked, screamed, and nearly pulled the RN to the ground. The RN called 911 due to the patient’s severe agitation and confusion.

**Mental status exam in the ED**
The patient is alert and oriented to name and place. Her affect is labile: intermittently tearful and laughing inappropriately, and dressed inappropriately for the season. Her mood is depressed and irritable, and her thought content is disturbed. The patient states, “I’m so depressed” and “Don’t steal my money.” She’s paranoid and fearful, with flight of ideas noted. She exhibits psychomotor agitation and is restless and unable to lie still as directed. Her vital signs are significantly elevated and her urinalysis is negative.

Haloperidol, 2 mg I.M., is administered in the ED due to the patient’s combative behaviors. She doesn’t verbalize pain due to severe agitation. The pain assessment is incomplete or minimal. The home care RN neglects to call the patient’s family, therefore, there’s no history available to the ED staff.

**Disposition from the ED**
The patient is admitted to the inpatient medical unit for treatment of dehydration, observation, and further assessment. A psychiatric consultation is ordered. The patient’s mirtazapine and quetiapine are discontinued; aripiprazole is ordered to target her agitated, combative behaviors. Trazodone is ordered for insomnia and haloperidol for severe agitation. A sitter is requested due to the patient’s fall risk.

**Inpatient unit**
The patient is hospitalized for 5 days. She’s transferred to the inpatient geriatric psychiatric unit for potential long-term care placement, where she remains for 2 weeks. She remains intermittently agitated, mixed with periods of sedation; her antipsychotic medications are increased. The patient’s pain is never addressed.

**Long-term-care unit**
The patient is admitted to the long-term-care unit on antipsychotic medications. Generally, she’s sedated and somewhat more compliant with the care provided. The patient continues to state that she’s depressed. The geriatric nurse specialist reports pain behaviors observed during the patient’s first few weeks on the unit. A pain assessment is ordered and the patient’s records are received documenting her history of degenerative disc disease, arthritic knees bilaterally, and recent wrist fracture.

The pain management team assesses the patient; pain medications and antidepressants are ordered, as well as physical therapy. The patient appears more comfortable, less agitated, and less confused as the antipsychotic medications are tapered to a lower dosage and conservative pain management is initiated and titrated up over the next 6 to 8 weeks.
drugs may serve to quiet the patient but fail to ameliorate the pain that may be the cause of challenging behaviors. Quality nursing care demands that appropriate assessment of pain be performed before the administration of medications targeting agitation. Nonpharmacologic nursing interventions and complementary and alternative therapies must be considered to offer holistic care to the patient with AD who’s experiencing pain.

REFERENCES

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