Study finds people living with dementia who had surgery for hip fractures lived longer than those treated non-surgically

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The decision to undergo surgery can be complicated for people living with dementia, not only due to limited decision-making capabilities, but also because participation in rehabilitation afterward is imperative to

surgery success.

A new study by investigators from Brigham and Women's Hospital, a founding member of the Mass General Brigham health care system, looked at hip fracture treatment outcomes in patients with dementia to see how they did when treated surgically versus non-surgically to help inform health care decision making.

The team found that those treated surgically experienced lower odds of death than those treated non-surgically and that this benefit was only seen in patients who had fractures of the head and neck of the femur versus other locations of the hip. Their results are published in the journal *JAMA Network Open*.

"Our goal is to better understand surgical decision making for patients that have dementia. And we know that hip fractures are common among older adults," said first author Rachel Adler, ScD, RD, a research scientist at the Center for Surgery and Public Health at Brigham and Women's Hospital.

"This study provides valuable insight on outcomes that may be important to patients and caregivers when making the decision about whether or not to have surgery."

In this retrospective cohort study, the researchers looked at data from 56,209 Medicare patients with dementia who were living in their communities, not in a facility, and who experienced new hip fracture injuries between January 2017 and June 2018. Of those, 59% were treated surgically and 41% were treated non-surgically.

The team stratified the results by dementia severity and hip fracture location and analyzed mortality rates within 30, 90, and 180 days post-surgery. They found that in cases where the hip fracture occurred in the

head and neck of the femur bone, which was the most common type of hip fracture, patients with both moderate-to-severe dementia and mild dementia who were treated surgically experienced lower odds of death than patients treated non-surgically. Patients with fractures in other locations of the hip, however, did not experience this benefit with surgery.

Other findings included that patients with moderate-to-severe dementia who were treated surgically were more likely to experience delirium during their inpatient hospital stay compared to patients treated non-surgically, and that there was no difference in nursing home admission between patients treated surgically and patients treated non-surgically.

Adler's team plans to extend this work to study longitudinal patient-reported outcomes of people living with dementia, including before and after different types of surgery and treatments for other health conditions, to better understand the impacts of their health care decisions.

"When making decisions about surgery, it is really important to think about the patient's quality-of-life goals," Adler said. "This analysis provides valuable information for clinicians caring for people living with dementia in their communities, and can help them talk with this group of patients and their caregivers about what is most important to them."

More information: Rachel Adler, et al. "Hip fracture treatment and outcomes among community-dwelling people living with dementia." JAMA Network Open, *JAMA Network Open* (2024). DOI: 10.1001/jamanetworkopen.2024.13878

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