

## **Strong painkillers increase the risk of hip fracture among persons with Alzheimer's disease**

JOENSUU, KUOPIO, Finland (November 26, 2018) - People using strong painkillers, opioids, have twice the risk of hip fracture compared to non-opioid users, a new study from the University of Eastern Finland shows. The risk was highest in the first two months of opioid use. The results were published in the PAIN journal.

The risk of hip fracture increased with increasing opioid strength. Use of weak opioids, such as codeine and tramadol, was not associated with the risk of hip fracture. However, moderately strong opioids, such as buprenorphine, were associated with a two-fold risk, and strong opioids, such as oxycodone and fentanyl, were associated with almost a three-fold risk, compared with non-use. Buprenorphine and fentanyl were almost solely used as patches in this study.

Opioids are used for the treatment of severe pain in cases where other painkillers fail to produce a sufficient response. Opioids impact on the central nervous system and for this reason, opioid use may cause attentional impairment or drowsiness. Opioids are known to increase the risk of falls which, in turn, may lead to hip fracture in older people.

The study was based on the nationwide register-based MEDALZ study conducted at the University of Eastern Finland. For this study, 23,100 community-dwelling persons diagnosed with Alzheimer's disease in Finland during 2010-2011 were included. From this sample, new opioid users were identified and matched with opioid non-users.

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### **Research article**

- Taipale H, Hamina A, Karttunen N, Koponen M, Tanskanen A, Tiihonen J, Hartikainen S, Tolppanen AM. Incident opioid use and risk of hip fracture among persons with Alzheimer's disease, a nationwide matched cohort study. PAIN 2018. Published online Oct 12, 2018. DOI: 10.1097/j.pain.0000000000001412

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