

[2008] [FRI0465] PLACE OF RESIDENCE AS A RISK FACTOR FOR HIP FRACTURE? A CASE-CONTROL 3-YEAR STUDY

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Objectives: Hip fracture is a major public health problem. It has been previously suggested that the incidence of hip fracture is higher among people living in nursing home than among community-dwelling. However, it is not clear whether this is a consequence of nursing home residence or of the greatest age of the residents. We have examined the relationship between the place of residence and hip fracture incidence, in a case-controlled study, matched for age.

Methods: Women included in this study were part of the placebo group of a randomized controlled trial having assessed the long-term effect of a new anti-osteoporotic drug. All women were osteoporotic and received placebo and vitamin D during the 3 years of follow-up. Osteoporosis was defined as the presence of at least one fracture confirmed by spinal radiography or a lumbar or femoral neck bone mineral density (BMD) T-score ≤ -2.5 . For each of the 215 institutionalized (nursing home, medical house) women included in this study, three non-institutionalized age-matched control were included (n=653).

Results: Mean age of the patients was 79.4 (5.6) years in the institutionalized women and 80.2 (5.8) in the non-institutionalized women (p=0.87). After 3 years of follow-up, 37 fractures occurred: 12 (5.6%) in institutionalized women and 25 (3.8%) in non-institutionalized women. The difference between the two groups was not statistically significant (p=0.27). After controlling for age, body mass index, lumbar and femoral neck BMD and number of prevalent osteoporotic vertebral fracture, the residence status of the patient (institutionalized vs non-institutionalized) was not significantly associated with hip fracture incidence (p=0.38). The only factor that was statistically associated with future hip fracture was the femoral neck BMD (p=0.008).

Conclusion: We suggest that living in an institutionalized place is not an independent risk factor for hip fracture for osteoporotic women receiving calcium and vitamin D supplements.

Ann Rheum Dis 2008;67(Suppl II):428

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