

OSTEOPOROSIS

Elderly patients with distal radial fractures should be assessed for osteoporosis

A low-energy distal radius fracture may indicate that an individual will eventually develop potentially devastating osteoporotic fractures. Øyen *et al.* now report that one-third of men and one-half of women aged 50 years or older with a distal radius fracture are in need of osteoporosis treatment. “We wanted to find out more about these patients,” explains Jannike Øyen, of the University of Bergen, Norway, “especially since prior studies ... have shown that a low-energy distal fracture [is associated with] an increased risk of subsequently more serious fractures at both the hip and spine.”

The researchers used dual-energy X-ray absorptiometry to measure BMD at the total hip, femoral neck and lumbar spine of 1,794 patients. When the researchers analyzed patients’ femoral neck BMD measurements, 37.7% of men and 51.1% of women had T-scores ≤ -2.0 SD (the Norwegian Medicines Agency indication

for osteoporosis treatment), while 19.6% of men and 31.2% of women had osteoporosis as defined by the WHO (T-score ≤ -2.5 SD).

“46% of women ... would have received treatment despite not having osteoporosis”

The 10-year risk of hip fracture was calculated using the fracture risk assessment tool (FRAX[®]), and across the whole cohort the 10-year risk of hip fracture was 6.2% for men and 9.0% for women. Although the proportion of individuals with osteoporosis increased with increasing FRAX[®] scores, crucially, a substantial proportion of patients with the highest 10-year fracture risk (FRAX[®] score $>15\%$) did not have osteoporosis.

The researchers stress that had they followed UK National Institute for Health and Clinical Excellence (NICE) guidelines for female osteoporosis therapy—women aged ≥ 75 years with low-energy fractures, irrespective of BMD—46% of women (and an equivalent 67% of men) involved in the study would have received treatment despite not having osteoporosis. “The implication of this finding is that treatment decisions should not be based on ... [the] assessment [of] future fracture risk alone,” adds Øyen, “but need to include the assessment of osteoporosis too.”

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Original article Øyen, J. *et al.* Low-energy distal radius fractures in middle-aged and elderly men and women—the burden of osteoporosis and fracture risk. A study of 1794 consecutive patients. *Osteoporos. Int.* doi:10.1007/s00198-009-1068-x