

Is the Incidence of Hip Fractures Becoming Lower?***Incidencia de fracturas de cadera, ¿se está reduciendo?**

Dear Editor,

We have carefully read the reflection by Dr. Aguado in a letter to the Editor about the osteoporosis consensus document published by the Spanish Society of Rheumatology.¹ Without a further assessment on the document itself, we would like to make some comments about an assertion that is made on the incidence of hip fractures in Spain and which we are quoted to determine that "the incidence of hip fracture has not diminished over the years".² We appreciate the reading and consideration of our work, but we believe that partial conclusions have been drawn from it. Indeed the incidence of hip fractures in our community, in absolute terms, has increased. However, keep in mind that the life expectancy of the population is increasing and, therefore, the age factor is very important when analyzing certain incidence data. It is necessary to adjust the rates by age, assuming, from a logical perspective, that the older the population, the greater the risk of fracture, since age is a major risk factor in achieving these expectations in the future, the changes in the population pyramid, is precisely the increase in the overall number of cases.³ The objective of our work was to establish a relationship between the use of treatment and the incidence of hip fractures, as we had observed that the number of hip fractures was actually increasing, despite the immense economic effort involved with the use of drugs for the management of osteoporosis in our community, a concern also reflected by Dr. Aguado when she points out that we are the country that consumes most of the drugs for this disease. We note that in certain age groups, particularly in the 65-74 range and those aged between 75 and 84, adjusting rates for age, the incidence of hip fractures decreased between 1994 and 2008.⁴ The results of the Poisson regression are statistically significant for these age groups and not for others. We could not establish a causal relationship with the use of drugs for osteoporosis because it was methodologically wrong, but, given that there has been no change in the population structure or in lifestyle in this period, and assuming that these findings may have diverse origins, we believe it plausible that treatment for osteoporosis has had an influence in reducing the appearance of these fractures.

Our results are also consistent with several studies published, reflecting a reversal of the upward trend in the incidence of hip fractures, but considering the analysis of the age factor.⁵⁻¹¹

References

1. Aguado Acín P, Vázquez Díaz M. Actualización del Consenso de Osteoporosis de la Sociedad Española de Reumatología: una oportunidad perdida. *Reumatol Clin.* 2012;8:230.
2. Etxebarria I, Mar J, Arróspide A, Esnal E. ¿De verdad estamos reduciendo las fracturas de cadera? Análisis de la incidencia de fracturas de cadera en la Comunidad Autónoma Vasca. In: SEIOMM. 2010.
3. Cooper C, Campion G, Melton 3rd LJ. Hip fractures in the elderly: a world wide projection. *Osteoporosis Int.* 1992;2:285-9.
4. Etxebarria-Foronda I, Mar J, Arrospide A, Esnal-Baza E. Trends in the incidence of hip fractures in women in the Basque Country. *Arch Osteoporos.* 2010;5:131-7.
5. Cooper C, Cole ZA, Holroyd CR, Earl SC, Harvey NC, Dennison EM, et al. Secular trends in the incidence of hip and other osteoporotic fractures. *Osteoporosis Int.* 2011;22:1277-88.
6. Nilson F, Moniruzzaman S, Gustavsson J, Andersson R. Trends in hip fracture incidence rates among the elderly in Sweden 1987-2009. *J Public Health.* 2012. <http://dx.doi.org/10.1093/pubmed/fds053>
7. Hernández JL, Olmos JM, Alonso MA, González-Fernández CR, Martínez J, Pajarón M, et al. Trend in hip fracture epidemiology over a 14-year period in a Spanish population. *Osteoporosis Int.* 2006;17:464-70.
8. Leslie WD, O'Donnell S, Jean S, Lagacé C, Walsh P, Bancej C, et al. Trends in hip fracture rates in Canada. *JAMA.* 2009;302:883-9.
9. Fisher AA, O'Brien ED, Davis MW. Trends in hip fracture epidemiology in Australia: possible impact of bisphosphonates and hormone replacement therapy. *Bone.* 2009;45:246-53.
10. Chevalley T, Guillely E, Hermann FR, Hoffmeyer P, Rapin CH, Rizzoli R. Incidence of hip fracture over a 10-year period (1991-2000): reversal of a secular trend. *Bone.* 2007;40:1284-9.
11. Jaglal SB, Weller I, Mamdani M, Hawker G, Kreder H, Jaakkimainen L, et al. Population trends in BMD testing, treatment, and hip and wrist fracture rates: are the hip fracture projections wrong? *J Bone Miner Res.* 2005;20:898-905.

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