

Beware of Hip Fractures in the Elderly [Response to Letter]

Cristina Bermejo Boixareu^{1,*}, Cristina Ojeda-Thies^{2,*}, Ainhoa Guijarro Valtueña³, Bernardo Abel Cedeño Veloz⁴, María Gonzalo Lázaro⁴, Laura Navarro Castellanos⁵, Rocío Queipo Matas^{5,6}, Paloma Gómez Campelo⁵, Ana Royuela Vicente⁷, Juan Ignacio González-Montalvo^{5,8}, Pilar Sáez-López^{5,9,10}

¹Geriatrics Department, Puerta de Hierro Majadahonda University Hospital, Madrid, Spain; ²Orthopaedic Surgery and Traumatology Department, 12 de Octubre University Hospital, Madrid, Spain; ³Orthopaedic Surgery and Traumatology, Puerta de Hierro Majadahonda University Hospital, Madrid, Spain; ⁴Geriatrics Department, University Hospital of Navarra, Pamplona, Spain; ⁵La Paz Institute for Health Research - IdiPAZ, Hospital Universitario La Paz - Universidad Autónoma de Madrid, Madrid, Spain; ⁶European University of Madrid, Madrid, Spain; ⁷Biostatistics Unit, Puerta de Hierro Majadahonda University Hospital, IDIPHISA, CIBERESP, Madrid, Spain; ⁸Geriatrics Department, La Paz University Hospital, Madrid, Spain; ⁹Geriatrics Department, Fundación Alcorcón University Hospital, Madrid, Spain; ¹⁰Spanish National Hip Fracture Registry, Madrid, Spain

*These authors contributed equally to this work

Correspondence: Cristina Bermejo Boixareu, Head of Geriatrics Department, University Hospital Puerta de Hierro Majadahonda, Madrid, 28224, Spain, Email Cristina_bermejo@hotmail.com

Dear editor

We would like to thank He Cao and Xiaoying Liu from Shanghai¹ for their interest and commentary regarding our publication “Clinical and Demographic Characteristics of Centenarians versus Other Age Groups Over 75 Years with Hip Fractures” published in *Clinical Interventions in Aging*.²

First, the letter states: “We have to take into account that different age groups experience different types of fractures, so that radius fractures are more frequent in younger women around 60 years of age. Vertebral fractures appear in slightly older women, in the 70s, and fractures of the limbs and hips in older women (octogenarians). The interpretation of this fact is based on the way each individual reacts to falls. Younger people react by supporting their hands when they fall, and older women who suffer hip fractures tend to be more frail patients who suffer falls and, not having the reflex to support their hands, fall sideways and hit their hips. In this study we have not recorded acute diseases on admission in order to study whether which are more common, or if there are significant differences between age groups”.^{3,4}

We agree that caregiver-related factors could influence outcomes. However, our study focused on describing the clinical characteristics and immediate outcomes of hip fractures in persons aged 75 years and older, using data from the Spanish National Hip Fracture Registry (RNFC), which does not include caregiver factors. The measurement of quality of life through scales, such as EQ-5D, as suggested by He Cao and Xiaoying Liu, has been included in some other international audits and would in our opinion also be valuable to assess. It is possible it may be included in the RNFC in the future.

Second, the greater percentage of women in older age groups is well known and has been documented in the literature, due to women's longer life expectancy compared to men and the higher overall prevalence and incidence of osteoporotic fractures in women than in men. We acknowledge that adjustment for this population-based difference could provide greater precision in future studies. Our aim was to provide a descriptive analysis of the characteristics of hip fracture patients according to their age group, and although we did not correct for the relative longevity of women, this bias is constant in studies analyzing older age groups.

Third, as mentioned above, our study focused on RNFC data and did not specifically address long-term quality of life, nor did it compare conservative versus surgical treatments. Surgical treatment of hip fractures has been shown to reduce the risk of mortality in centenarians,⁵ compared to those managed non-operatively, as also occurs in younger age groups. In our study, 60% of centenarians could walk with assistance one month after the fracture. Undoubtedly, the functional

and vital prognosis of patients treated surgically is better than those treated nonoperatively (which entails immobility, pain, higher risk of pressure sores, infections, aspiration pneumonia, functional decline, increased burden of care, institutionalization, and greater mortality).

The multivariate analysis in our study was unable to find an association between the type of surgery performed and 30 day-mortality. We found that their prefracture medical condition was a prognostic factor and, thus, we believe the assessment of surgical risk becomes even more important in this age group. The involvement of geriatricians in this decision-making process is crucial in the oldest old, as is taking into account the patient's rights and wishes.

Thank you for taking the time to read our research and give thoughtful feedback on our paper.

Disclosure

The authors report no conflicts of interest in this communication.

References

1. Cao H and Liu X. Beware of Hip Fractures in the Elderly [Letter]. *Clin Interv Aging*. 2024;19:1713–1714. doi:10.2147/CIA.S499275
2. Bermejo Boixareu C, Ojeda-Thies C, Guijarro Valtueña A, et al. Clinical and demographic characteristics of centenarians versus other age groups over 75 years with hip fractures. *Clin Interv Aging*. 2023;18:441–451. doi:10.2147/CIA.S386563
3. van Staa T, Dennison E, Leufkens H and Cooper C. Epidemiology of fractures in England and Wales. *Bone*. 2001;29(6):517–522. doi:10.1016/S8756-3282(01)00614-7
4. The European Prospective Osteoporosis Study (EPOS) Group. Incidence of Vertebral Fracture in Europe: Results From the European Prospective Osteoporosis Study (EPOS). *J Bone Miner Res*. 2002;17(4):716–724. doi:10.1359/jbmr.2002.17.4.716
5. Ng WX, Kwek EB. Too old for surgery? Outcomes of hip fracture surgery in centenarians. *Ann Acad Med Singap*. 2017;46(3):115–117. doi:10.47102/annals-acadmedsg.V46N3p115

Dove Medical Press encourages responsible, free and frank academic debate. The content of the Clinical Interventions in Aging 'letters to the editor' section does not necessarily represent the views of Dove Medical Press, its officers, agents, employees, related entities or the Clinical Interventions in Aging editors. While all reasonable steps have been taken to confirm the content of each letter, Dove Medical Press accepts no liability in respect of the content of any letter, nor is it responsible for the content and accuracy of any letter to the editor.

Clinical Interventions in Aging

Dovepress

Publish your work in this journal

Clinical Interventions in Aging is an international, peer-reviewed journal focusing on evidence-based reports on the value or lack thereof of treatments intended to prevent or delay the onset of maladaptive correlates of aging in human beings. This journal is indexed on PubMed Central, MedLine, CAS, Scopus and the Elsevier Bibliographic databases. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <https://www.dovepress.com/clinical-interventions-in-aging-journal>

<https://doi.org/10.2147/CIA.S501059>