Hip fracture: an opportunity to treat osteoporosis?

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Fracture of the hip is the most serious complication of osteoporosis, not only due to the morbimortality it entails but due to the social-health costs which it generates[1]. However, in spite of this enormous impact, in practice the identification and treatment of osteoporosis and the adequate monitoring of those who have suffered a hip fracture is highly irregular[2].

In Spain, the use of antiosteoporotic medication is, in general and in the primary care setting in particular, higher in the group of women with an average age of 65 years. However, it is much lower in those at ages with a greater propensity to hip fracture[3,4]. Furthermore, in spite of the fact that the therapeutic arsenal for osteoporosis has increased notably in the last decade, the use of antiresorptive or osteoforming drugs after a hip fracture occurs is low, and has even reduced in countries such as the US[5].

The reasons for this low use of antiosteoporotic treatment in patients with fragility fractures are complex and probably different in different health systems. Nevertheless, it should be said, firstly, that the understanding of osteoporosis, and the risk of fracture and of its complications on the part of the population and the people who look after these patients, is not always adequate[6]. Secondly, the secondary effects associated with the use of antiresorptive drugs (osteonecrosis of the jaw, atypical femoral fractures, auricular fibrillation…) have played a role in recent years in the decision to initiate an antiosteoporotic treatment[7]. Lastly, one of the most significant reasons is the fragmentation in the care of these patients in different clinical settings (emergency services, traumatology and orthopaedic surgery, rheumatology, internal medicine, geriatrics, rehabilitation, primary care). In fact, in the last few years, the development of multidisciplinary fracture units have been promoted by the different medical societies. In line with this, a recent work, carried out in the United States, has demonstrated that this type of unit would be cost-effective and would result in a reduction in new fractures in those subjects presenting a hip fracture[8].

In this number of the Review of Osteoporosis and Mineral Metabolism, León Vásquez et al.,[9] analyse the variation in antiosteoporotic treatment before and after the occurrence of a hip fracture through the review of the database for pharmaco-epidemiological research in primary care (BIFAP), in the years from 2005 to 2010. However, with the limitations in the clinical records and those mentioned by the authors, they observed that around a quarter of the subjects who had suffered a fragility fracture of the hip received some anti-osteoporotic drug in the year before the fracture (in fact only 15% had had a diagnosis of osteoporosis recorded). Approximately half of the medicines prescribed were bisphosphonates, followed by calcitonin (12%), with the use of teriparatide being around 2% (no patient was recorded as having been treated with denosumab, given that is was not yet commercialised). As a whole, it represents a striking figure, which could be even lower, given that a patient is only considered to have been treated if they had completed at least two prescriptions of one of these agents or a single prescription if it had been completed in the last 6 months. It was also not possible to obtain information regarding the dose or the period of exposure to the drug. Furthermore, neither the persistence or adherence to treatment were analysed.

In the case of prescription of antiosteoporotic treatment after hip fracture, there was only evidence of a small increase (39% of patients). A third of the patients with fractures were receiving calcium and/or vitamin D supplements, while, overall, the prescription of an antiresorptive drug with efficacy in the hip (bisphosphonates and strontium ranelate) was around 25% (mainly alendronate and risedronate, in 20% of cases). The prescription of teriparatide after fracture was very low, (2%). The strongest predictor associated with the receipt of antiosteoporotic treatment after fracture was that the patient was female (OR: 2.4), followed by having had an earlier diagnosis of osteoporosis (OR: 1.61). It is worth noting that in this study all drugs prescribed within a year after the fracture were considered, without specifying the moment

at which their consumption was initiated, or the persistence or adherence to the treatments scheduled. Given that the study dealt with records in a primary care setting there were also no data regarding the prescription of zoledronic acid.

So, even with these limitations, these data from the BIFAP record, among others, do nothing but confirm the low use of antiosteoporotic drugs after a fragility fracture, and specifically, a fracture of the hip. Hence, the clinical records of patients with osteoporosis, such as the OSTEOMED register of the working group on osteoporosis of the Spanish Society of Internal Medicine, may be useful tools for identifying areas of improvement in the management of this disease and its complications.

In accordance with the above, the scientific and clinical societies involved must join forces to identify, adequately assess and closely monitor those patients with osteoporosis and fragility fractures with the aim of reducing the patients' risk of new fractures and improving their quality of life, while contributing to more efficient health systems. The formation of multidisciplinary clinical fracture units may contribute to the improvement in the approach to these patients, especially in ensuring adequate treatment of osteoporosis after a hip fracture.

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