Is osteoporosis a real disease?

Sirs,

We as physicians are supposed to diagnose and treat 'diseases'. Although the answer to 'what is a disease' looks upfront at first sight, since there are no universally accepted criteria for establishing 'disease'. Despite the complexity surrounding the concept of disease, it can refer in a most simplistic way, to a combination of signs and symptoms, associated with a disorder of function or structure associated with a specific cause(s) (1). In this regard, we think that osteoporosis does not fulfill some of the major components of this acceptable definition. One of the latest definitions of osteoporosis emerged from the National Institute of Health Consensus Development Panel on Osteoporosis Prevention, Diagnosis and Therapy, which defines osteoporosis as a skeletal disorder characterised by low bone strength and increased risk of fracture (2). This definition in a broader sense only meets the second part of the disease concept, that is, a disorder of structure with a risk of fracture. On the other hand, osteoporosis, in the absence of fracture does not cause any signs, symptoms, or even decreased quality of life. The only way to define osteoporosis is to measure the bone mineral density by various methods. Although bone mineral density is used for the diagnosis of osteoporosis and to assess fracture risk, it has become increasingly apparent that bone mineral density reflects only one element of bone strength. Indeed, osteoporosis is just one of the well-defined risk factors of fracture, and its value in predicting fracture risk is no greater than several other risk factors. In fact, it has been shown that the majority of patients who sustain fragility have a T score above -2.5 (3, 4). There are several factors associated with a fracture risk in addition to bone mineral density such as age, history of previous fracture, family history, weight, height, corticosteroid use, as well as geographical location (5).

Some may argue that distinction between classifying osteoporosis as a disease or as a state (risk factor) is irrelevant and represents no more than a philosophical debate. However, it should be kept in mind that labelling a condition as a disease has social, cultural and economic consequences. Osteoporosis, which after being officially recognised as a disease by the WHO in 1994, switched from being an unavoidable part of normal ageing to pathology signifies why it is important to deal with the disease concept (6). Since that time, we as the rheumatology community have witnessed all possible consequences, both positive and negative, thst come along with this trend. Decrease in the risk of fractures is one potentially positive consequence of this trend, while we still do not clearly know if this risk reduction outweighs treating such a large population considering the potential side effects as well as the economic burden of these treatments (7).

Even if we ignore the economic aspects of accepting osteoporosis as a disease, there are other possible adverse consequences such as making relatively healthy individuals perceive themselves as sick. In our everyday practice, it is not uncommon to see patients (or individuals with potential risk fracture) consulting us anxiously with the strong fear of fracture development.

We suggest that osteoporosis should be considered as a risk factor along with the other factors associated with the fracture development. We are not against the treatment of osteoporosis, but we think that treating osteoporosis can be justified only if it is considered as just one component of a larger risk modification strategy for fragility fractures. In conclusion, if we want to ensure that limited healthcare resources are appropriately distributed, we must develop a strategy targeting the prevention of fractures, and distribute our efforts almost equally to all risk factors associated with fracure development.

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