

Commentary: Where are we from the Implementation of Fragility Fracture Guidelines in Lebanon?

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Abstract

After the publication of our report that established the guidelines for the management of fragility fractures in Lebanon four years ago, many major hospitals adhered to the recommendations and witnessed an important reduction in fragility fracture morbidity and mortality as well as an increased awareness of the secondary prevention of fractures. However, this adherence was not noted on all the Lebanese territories and there is still much work to do, especially to establish a Lebanese fragility fracture registry and a Lebanese National Hip Fracture Database, and to diffuse the guidelines nationwide by making the Lebanese Ministry of Health, the Lebanese Order of Physicians and the Lebanese Orthopedic Society adopt them.

Keywords: Fragility fracture; Osteoporosis; Prevention; Guidelines

Introduction

Four years ago, we performed a thorough review of literature on the ideal fragility fractures management. This work, inspired from international guidelines, and taking into consideration the Lebanese socio-economic and demographic particularities, led to the establishment of the guidelines for fragility fractures in Lebanon [1]. The main aim of this paper is to report the adherence to these recommendations, analyze the difficulties in applying them and explore the possible ways to help improve Their application.

Since the guidelines publication, participating authors unified their efforts to apply them starting from their own institutions. For example, at our institution the time to transfer the patient from the ED to the orthopedic specialized ward reaches around 160 min. All surgical cases, especially hip fracture cases are being operated on in minimal delays, usually within 24 h, after getting the medical clearance from the multidisciplinary team. To add to that, many hospitals in Beirut have established, following the diffusion of our report, agreements between orthopedic and geriatric departments to form an ortho-geriatric unit and to standardize a multidisciplinary approach to the aged patient acutely admitted to the hospital for a fragility fracture. The majority of the patients in these hospitals are benefiting from advanced sessions of physical therapy and some of them are systematically admitted to the more and more available and sophisticated medium stay centers of rehabilitation. This is crucial in reducing the morbidity of the fracture and enhancing the struggle to get back to the pre-fracture status. Some hospitals also introduced the fragility fracture nurse, or the liaison nurse: this is a qualified specially formed nurse that provides the patients with fragility fractures the necessary information concerning the secondary prevention, the osteoporosis evaluation and treatment, and coordinates the elements of the multidisciplinary team in the inpatient and outpatient settings [2].

We should also emphasize the educational impact of this system as our interns and residents are becoming pioneers in adhering to these global recommendations.

This evolution in the assessment and management of the fragility fracture in our institution and some of the major hospitals led, during this short period of four years, to a substantial reduction in the inpatient medical complications (ileus, urinary tract infection...), thus decreasing the length of stay, intensive care unit admission and

mortality. Also, we have observed a great reduction in the readmission rates of our discharged patients.

However, despite this noted improvement, much work is yet to be done on the national scale, especially that according to Cooper et al. [3], Asia, which is witnessing the highest increment in its elderly population, will carry the largest proportion of the osteoporosis burden in the coming decades. The adoption of these guidelines is still far from being unanimous on all the Lebanese territories due to lack of human resources (available dietician, physical therapist), economic potentials, technical facilities, and sometimes awareness of the importance and effectiveness of secondary prevention. Also, sessions of familiarization to FRAX[®] score and its clinical applications to urge primary care physicians to assess fracture risks in their patients are lacking [4]. To add to that, neither a Lebanese fragility fracture registry nor a Lebanese Hip Fracture Database have been conceived. This is obvious in the newly published studies in the literature when the study entitled "Epidemiology of hip fractures in Lebanon: A nationwide survey" published in the 2013 is based on data coming from 2007 from a one year data collection asked for by a ministerial decree [5]. Also, this published paper by Sibai et al. [6] is based on the registered patients who received their care solely through the Lebanese ministry of health, and who represent a small part of the Lebanese population. Such registries are of necessity for the follow up and the evaluation of the outcomes, complications and the epidemiology of fragility fractures in Lebanon. Otherwise a comparison of our outcome to those in the developed countries worldwide, together with an objective evaluation of our medical system and the application of the recommendations will be impossible.

What will be done now, after the four years of successful application of these recommendations, is addressing mainly the Lebanese ministry

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of health, the Lebanese order of physicians, the Lebanese orthopedic society as well as rheumatologic, family medicine, physiotherapist and dietician Lebanese societies to share with them our experience. This is to urge them to intensify efforts towards adoption and diffusion of this successful model on the totality of the Lebanese territories, and to help create the Lebanese fragility fracture registry and National Hip Fracture Database. Primary prevention is now of vital importance and we are working on campaigns and standardized procedures to diffuse between our primary care physicians to expand awareness on the bone fragility disease in this bone and joint decade.

In conclusion, we believe that the diffusion of these recommendations four years ago was a big step towards a better understanding and a better management of fragility fractures in Lebanon. Despite the difficulties that are facing the nationwide implementation of these recommendations, we hope that for the upcoming three to five years, an established, computerized, connected and well organized fragility fracture and hip fracture registry and database will be fully operational, together with an official adoption of the recommendations of management of the fragility fracture as well as the diffusion of the principles of primary and secondary prevention. This will help us conduct several epidemiological studies that we are designing, in order to evaluate the morbidity and mortality of hip fractures in Lebanon in people aged above 50 years, and to evaluate the ratio of fragility fracture patients treated for osteoporosis, wishing to find surprisingly high

outcomes. We also expect that during the upcoming decade we will be working on generalizing the fracture liaison service experience that was proved to directly improve patient care and to reduce the fracture related costs [7].

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