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Osteoporosis – An Imminent Ethical and Legal Debacle?

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Learning Point of the Article:

Osteoporosis is a separate medical entity from fragility fractures, which needs to be recognised, informed to the patient, and treated to avoid litigation against the orthopedic surgeon.

Abstract

Osteoporosis is a condition characterized by a decrease in bone density. Its prevalence is on the rise and is only going to continue to rise further. Fragility fractures such as neck of femur fracture fractures and intertrochanteric fractures are among the most common fractures encountered by orthopedic surgeons today. Yet, the management of these fragility fractures has unfortunately fallen short of addressing the etiology behind the fracture. Orthopedic surgeons routinely perform arthroplasty or osteosynthesis for stabilization of these fractures, but rarely do they address the coexisting osteoporosis. We explore the factors, leading to this scenario, the practical hurdles faced, the ethical and legal considerations on the matter, and the road ahead. We believe that this is a topic which should be discussed further among orthopedic surgeons to arrive at practical solutions and change in perspectives. The aim of this article was to encourage a debate on the matter, increase awareness about the current situation, and help change the trend in the management of osteoporosis in developing countries like India.

Keywords: Osteoporosis, ethics, medicolegal, treatment, practices.

Introduction

Osteoporosis is a condition characterized by a decrease in bone density and is most commonly caused due to advanced age, menopause, or certain metabolic conditions. This decrease in bone density increases the susceptibility for fracture to occur. Such fractures are termed fragility fractures and can occur with even minor trauma. Considering the increasing population of individuals above the age of 60 years, the prevalence of osteoporosis is on the rise and is only going to continue to rise further. Proximal femur fragility fractures, namely, neck of femur fracture and fracture of the intertrochanteric region are the most commonly encountered fractures in individuals over the age of 60 years. They are among the most common fractures encountered by orthopedic surgeons today. Vertebral fractures, proximal humerus fractures, and distal radius fractures are other commonly occurring fragility fractures. Yet, the management of these fragility fractures has unfortunately fallen short of addressing the etiology behind the fracture. Orthopedic surgeons routinely perform arthroplasty or osteosynthesis for stabilization of these fractures, but rarely do they address the coexisting osteoporosis [1].

The Problem

Osteoporosis is a generalized condition, not restricted to a

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Author's Photo Gallery


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localized area or single bone. This means that a fragility fracture is only a partial manifestation of the underlying pathological process. Thus, stabilization of the fragility fracture only addresses the single region of fractured and does not address the other bones. This still leaves the patient with an increased risk of fracture in the opposite femur, vertebra, and other bones. Studies have also shown that an individual who sustains a fragility fracture has a substantial increase in the likelihood to sustain another fracture [2]. This demonstrates the need for treatment of the osteoporosis.

Another problem is osteoporosis very often remains undiagnosed [3]. Despite osteoporosis being easy to suspect in patients with fragility fractures by the advanced age of the patients, the presence of osteolysis on radiographs, classical locations of fragility fractures, and thin cortical bone encountered intraoperatively, patients are rarely evaluated for osteoporosis. This lack of evaluation is the leading cause for osteoporosis going untreated [4].

The Excuses

Evaluation requires estimation of serum calcium, serum Vitamin D levels, and dual-energy X-ray absorptiometry (DEXA) scan. DEXA scan is not available in smaller centers and is more expensive than routine radiographs. Another reason given by many is that treatment of osteoporosis is expensive and hence, patients are not willing to pay for prophylactic treatment of a condition.

However, these are not valid reasons to justify the lack of diagnosis and treatment. Estimation of serum calcium and Vitamin D are simple, inexpensive, and available routinely. The supplementation of calcium and Vitamin D are inexpensive and play a major role in the treatment of osteoporosis. DEXA scans are now available in an increasing number of centers and are now less expensive than CT scans. The price of a DEXA scan in most centers today is <Rs.1800. If the diagnosis of osteoporosis is doubtful and DEXA scan not possible, at least a diagnosis of osteopenia can be made on radiographs. Osteopenia coupled with a fragility fracture would necessitate treatment in most cases. Singh's index is a grading of the osteopenia of the proximal femur which can be made on radiographs alone.

Ethical Concerns

It is the moral duty of the doctor to inform the patients about all the medical conditions, and therefore the diagnosis of osteoporosis should be disclosed. When there overwhelming evidence about the increased incidence of future fractures, it is the doctor's duty to make the patient aware of this risk. This would allow for the patient to decide on treatment, undertake corrective measures such as physical activity, improved dietary intake, and take precautions to avoid falls in the future. Not disclosing this diagnosis would create an unpleasant ethical situation if the patient were to experience a complication of osteoporosis which could have been prevented.

Legal Concerns

Missing the diagnosis of osteoporosis can easily become grounds for a malpractice lawsuit if a patient treated for a fragility fracture was to experience another fragility fracture in the future. Such a patient's claim that the missed diagnosis of osteoporosis/non-disclosure of increased fracture risk would not be unfounded. Even if a patient is unwilling for a DEXA scan, or not willing for treatment of osteoporosis due to financial or other reasons, it would still be imperative that the doctor document the diagnosis of osteoporosis and their recommendation for treatment, and the refusal of the patient for the same. Osteoporosis also increases the chances of failure of implants used in fracture fixation, and this risk as well should be explained to the patient and documented.

The Road Ahead

Going a step further, we strongly recommend that the fracture risk assessment tool be used. It is a freely available online tool, to objectively estimate the percentage risk of future fragility fractures based on input of certain patient details [5]. This would be very useful in counseling of osteoporotic fractures about the future risk of fracture and to decide on initiation of treatment for osteoporosis. The disclosure and documentation of this percentage would be a marker of ethically and legally providing the patient with all the information required to make a proper judgment on further course of action. I recommend, all patients with fragility fractures undergo complete evaluation for osteoporosis including DEXA scan. Treatment should be initiated in accordance with guidelines [6].

Conclusion

Malpractice litigation is on the rise and is only going to increase further in coming decades. The ethical and legal issues in related to osteoporosis have been widely overlooked for decades. This is in my opinion, is a recipe for a litigation disaster waiting to happen in the coming years. It needs rectification and it needs to be immediate.

Declaration of patient consent: The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given the consent for his/ her images and other clinical information to be reported in the journal. The patient understands that his/ her names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Conflict of interest: Nil **Source of support:** None

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