

## **Confusion To Clarity**

*Osteoporosis is an ailment taking shape of an epidemic on the medical horizons, consuming lot of research and brainstorming amongst experts, leaving lot of confusion among care-givers about most rational treatment of the condition. About 1.3 million fractures in USA and 0.2 million fractures in UK are attributed to osteoporosis, annually.*

*Osteoporosis may be defined as a reduction in bone mass per unit volume, such that fractures may occur with minimal trauma. In nutshell, everything is revolving around development of weakness and susceptibility to fractures among aging population, adding to other problems of morbidity in geriatric population, causing further complications and leading to death. Our aim is to diagnose it early, quantify the bone loss and susceptibility to fractures and prevent them, giving better quality of life to geriatric population. There are controversies and multitude of theories at every stage.*

*How to quantify osteoporosis? T-score of -1.0 to -2.5 is osteopenia and that below -2.5 is osteoporosis. T-score is calculated in relation to peak Bone Mass Density (BMD) of average population. Indian academics are arguing that, since our population has low peak BMD as compared to western (read White) and black population, we should set our own standards of average peak BMD and accordingly calculate T-score. Here is a catch. Susceptibility to fractures is a function of reduced BMD in absolute terms. Biomechanical factors remaining same, fracture susceptibility will relate itself directly to the BMD not differentiating Indian population. Most important is the fact that osteoporosis is preventable.*

*Other diseases and disorders including, cognitive, neurological, neuromuscular, etc. need to be taken care in the total scheme of management not underestimating the importance of proper environment like carpets, curbs, slippery floors, proper lighting, etc.*

*Various methods are available to quantify BMD. Days of subjective method of diagnosing osteoporosis on plain X-Ray are gone. Accurate diagnosis with quantification of BMD is essential. Ultrasound based and DEXA bone densitometry and Quantitative CT have established themselves and give similar results. Patient's financial capability to undertake these investigations should be accounted as the same pocket has to spend for treatment also.*

*One must always exclude diseases which are likely to confuse with osteoporosis. Generalized bone and bone marrow diseases having similar picture must be excluded. Fluorosis leads to apparent increase in bone density but not the strength.*

*Many methods of treatment are available from Hormone Replacement Therapy (HRT), Anabolic Steroids, Bis-phosphonates, Vitamin D, Alfa-calcidol, Calcium supplements, Calcitonin to ? Flourides (disputed), exercises, prevention of falls and so many other things. One has to choose from his learning from teachers and own experience, to learning from new literature. One must choose carefully from literature, not getting carried away by the claims of pharma industry.*

*We are at the stage of confusion but certainly the next stage is clarity. After every dark night there is a dawn.*

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