Premenopausal Osteoporosis

This department covers selected points from the 2007 Endocrine Update:
A CME Day from the Division of Endocrinology and Metabolism at McMaster University and the University of Western Ontario.
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Bone density follows a bell-curve distribution and a T-score of less than one standard deviation below the young adult mean is present in approximately 15% of young, healthy women aged 30 to 40 years. Approximately 0.5% of young healthy women aged 30 to 40 years have a T-score ≤ -2.5. In premenopausal women, it is therefore important to distinguish between low peak bone mass and a systemic disorder resulting in low bone mineral density and skeletal fragility.

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Diagnosis

BMD alone is insufficient for the diagnosis of osteoporosis in premenopausal women in the absence of fragility fractures. Individuals presenting with low BMD with or without fragility fractures should be evaluated with exclusion of secondary causes of bone loss that may have contributed to the development of low BMD. These include:

- ovulatory disturbances,
- clinicial or subclinical estrogen defiency
- low body weight.

Other diseases may also cause bone loss and include hyperthyroidismn, primary hyperparathyroidism, malabsorptive states renal disease and medications (*e.g.*, glucocorticoids, lithium). These should be identified and treated if present.

Treatment

Alendronate and risedronate have been demonstrated to be effective in improving BMD and reducing bone turnover in premenopausal women with secondary causes of bone loss, such as steroid use. In the absence of a documented secondary cause for osteoporosis, bisphosphonates therapy should not be routinely prescribed. Estrogen supplementation is of use in the presence of estrogen deficiency only. Lifestyle modification, including weight-bearing exercises, smoking cessation and adequate dietary calcium intake, is valuable in preventing progressive bone loss in premenopausal women.

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