



The Current Management of Osteoporosis An Evidence-Based Gynecologist's Perspective

Gathered and prepared by Abdel-Fattah I, MD

Professor, Department of Obstetrics and Gynecology,
Ain Shams University

Many gynecologists became interested in osteoporosis in the 1990s because of the role played by estrogen deficiency in the etiology of postmenopausal osteoporosis and later on because of the use of hormone replacement therapy both in the prevention and the treatment of osteoporosis.

Back in the 1990s, and based on strong evidence from case control and cohort studies, hormone replacement therapy (HRT) was indicated also for the treatment of menopausal symptoms as well as the prevention of coronary heart diseases (CHD) as it was shown that it has a favorable effect on serum cholesterol. At that time, the lack of randomized controlled trials (RCTs) was a major issue in all discussions involving the benefits and hazards of HRT.

In July 2002, the Women Health Initiative (WHI) study was published. It was the first RCT examining the benefits and hazards of HRT. Although all reviewers found many pitfalls in this study, yet it showed that HRT has no protective effect as regards CHD and stroke, but even it may cause some harm. The conclusion of this study was that we should not start HRT for the 1ry or 2ry prevention of CHD. The use of HRT for other indications should be weighted against the risk of breast cancer, CHD, pulmonary embolism and stroke.

In August, 2003; The Million Women Study showed the magnitude of breast cancer problem associated with HRT in the UK. This study showed that users of combined (E&P) HRT are at a higher risk of developing breast carcinoma than users of Estrogen alone and non users. It showed that the risk is limited only to current users and that it is eliminated in past users.

Now, most reasonable gynecologist would only consider the use of HRT to relief menopausal symptoms. In using HRT to prevent osteoporosis, the risks for CHD, stroke, pulmonary embolism and breast cancer must be weighed against the benefit for fracture keeping in mind the availability of other agents that can prevent osteoporotic fractures.

In order to help clinicians selecting the best treatment for osteoporosis, "A Systematic Reviews of Osteoporosis Treatments: A Collaborative

Approach" was prepared by Ottawa Cochrane Group and McMaster University presenting the ORAG meta-analysis of all drugs used in this field. From the very beginning, the ORAG focused on the fracture prevention abilities of drugs rather than their effect on the bone mineral density (BMD) especially when it was noticed that fracture prevention may precede any actual increase in BMD. Vitamin D, Alendronate (5–40 mg), Etidronate (400 mg), Risedronate, and Raloxifene, all had a significant vertebral fractures risk reduction. Meanwhile only Alendronate and Risedronate (with consistent results across studies) can significantly reduce non vertebral fractures risk. The risk reduction estimates were ~50% for alendronate and ~30% for risedronate when used for 2 years. Limited data was obtained on decrease in pain, disability with decrease in vertebral fracture in this review.

Practical hints

- Post menopausal hormone therapy should be viewed as specific short term treatment for symptoms including both vasomotor and cognitive symptoms in perimenopausal women.
- Estrogen plus progestin should not be initiated or continued for the primary prevention of CHD.
- The risks of HRT must be weighed against the benefit for fracture in selecting from the available agents to prevent osteoporosis.
- Whenever it is possible (as in post-hysterectomy patients), progesterone should not be added to estrogen in the HRT regimen.
- Patients on HRT should be counseled frequently (at least once yearly) as regards the possible benefits and hazards of HRT and the availability of other alternatives.
- Other drugs that act on estrogen receptors are not without risk as all would inherit some estrogenic characteristics.
- Focussing on non-vertebral fractures helps to chose therapies as many drugs would reduce vertebral but not non-vertebral fractures.