

Hormone replacement therapy and osteoporosis

Position statement August 2012

Hormone Replacement Therapy (HRT) has been used successfully for many years to relieve the symptoms of menopause, such as hot flushes, vaginal dryness and loss of libido.

Osteoporosis and fractures are more common after the menopause, when estrogen levels drop significantly. By restoring estrogen levels, HRT helps to slow the rate of bone loss, as well as relieving the symptoms of menopause. Studies have shown that HRT, even at low doses, can significantly increase bone density (1) and reduce the rate of fracture (2). HRT is particularly useful for women who have undergone early menopause (before 45 years of age); these women are at greater risk of osteoporosis.

Two large studies conducted a decade ago have had a significant influence on the way that HRT is used to treat both the symptoms of menopause and osteoporosis (3,4). These studies aimed to understand more clearly both the risks and benefits associated with HRT. In the largely older population of women studied, the researchers reported that whilst HRT significantly reduces the rate of fracture, it increased the risk of heart disease and stroke. Breast cancer risk was found to increase slightly in combined (oestrogen plus progestogen) HRT after several years of use, but decreased in women taking oestrogen – only HRT. The researchers concluded that the risks of long-term HRT treatment may outweigh the benefits, including the positive effects on bone health. The published results attracted extensive media coverage, and many women using HRT chose to stop. In the ten years since this research was published, further analysis and interpretation of the results in a series of recently published reviews, as well as data from new studies, has questioned many of the original negative conclusions about the risks of HRT (5,6). A fuller understanding of the benefits of HRT relative to its risks in the younger population of women going through menopause (those in their fifties) has led to a recent reconsideration of short-term HRT for relieving menopausal symptoms as well as improving bone health.

Whilst the general protective effects of HRT on bone are not controversial, the role of HRT as a specific treatment for osteoporosis is still the subject of research and discussion. In view of the potential risks, Osteoporosis Australia advises the following, particularly if osteoporosis is a factor in the decision to begin or continue HRT.

- The risks and benefits of HRT will be different for each woman, and treatment decisions should be taken only after discussion with a doctor. HRT treatment should be regularly reviewed, particularly if there has been any change in risk factors.
- The risks of using HRT increase with increasing age. In women below the age of 60 who do not have risk factors for breast cancer, cardiovascular disease, stroke or venous thrombosis, the risks associated with short-term HRT are very low. Osteoporosis Australia advises that HRT should be considered as a short-term

treatment (up to 5 years) for osteoporosis for women below the age of 60 if other osteoporosis treatments cannot be used, or if there are additional reasons for using HRT (ie.,relief of menopausal symptoms).

- Women over 60, who are more likely to develop osteoporosis and experience fracture, are also at higher risk of cardiovascular disease, stroke and venous thrombosis. The risks of HRT for these women may outweigh any benefits for bone health. While individual risks will vary, other treatments for osteoporosis such as bisphosphonates, SERMs, denosumab or strontium ranelate are more suitable for women over 60.
- It is still not known how long, if at all, the protective effects of HRT on bone continue after HRT treatment ceases. For women over 60 who continue to have low bone density and who are still at risk of fracture, it is important that other treatments for osteoporosis are commenced when HRT is stopped.

Two recent publications provide an overview of current recommended practice for using HRT, along with discussion of the risks and benefits (7,8).

References

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