



The Role of Serms after Menopause

SERMs is the shorthand term for a class of drug called selective oestrogen receptor modulators. These compounds act like oestrogen in some parts of the body and in other parts of the body they have an anti-oestrogenic effect. They are a versatile group of drugs that can be used to treat a number of conditions associated with aging such as osteoporosis (bone thinning disease) and hormone responsive cancers, and also in infertility.

Different kinds of SERMS

- Naturally occurring SERMs include plant-derived oestrogens or phyto-oestrogens that are sometimes used to treat symptoms of menopause.
- Clomiphene citrate is an early SERM which is used to induce ovulation in women desiring pregnancy.
- Tamoxifen is another early SERM which is taken to reduce the risk of recurrent breast cancer and to prevent the development of breast cancer in women at increased risk of breast cancer. It acts as an anti-oestrogen to reduce oestrogen stimulation in the breast but like an oestrogen in other parts of the body. It improves bone density, but increases the risk of endometrial cancer (cancer affecting the lining of the uterus) and also of deep vein thrombosis. In women who have had breast cancer this risk is outweighed by the benefits of reduction in risk of recurrent breast cancer.
- Newer SERMs are being developed to make use of the positive effects of oestrogen such as preventing osteoporosis, treating genital atrophy (vaginal dryness), reducing cardiovascular risk and preventing breast cancer, and minimising the negative effects. The only one so far available for use in post menopausal women is raloxifene. There are a number of others such as basodoxefene, ospemifene and lasoxifene which are currently being trialed.

Benefits of raloxifene

- Raloxifene has been shown in clinical trials to increase bone density in the spine and hip and to reduce the risk of spinal fractures in women with osteoporosis. Unlike tamoxifen, raloxifene is anti-oestrogenic in the uterus so it does not have an increased risk of endometrial cancer. It is unlikely to cause bleeding or spotting. Raloxifene has been shown to reduce the risk of invasive breast cancer in women who are taking it for osteoporosis or who are at increased risk of developing breast cancer, with fewer side effects than tamoxifen. Women who take raloxifene may improve their blood lipids (fats) and may reduce their long term risk of heart disease, but this has not been proven

Risks of raloxifene

- Raloxifene does not improve menopausal symptoms, and may in fact cause hot flushes. Its use is therefore limited to postmenopausal women i.e. women who have gone at least a year without a period and who do not have troublesome symptoms of menopause. Like oral oestrogen, SERMs including raloxifene slightly increase the risk of deep venous thrombosis (DVT or blood clots) so extra care will be taken in deciding whether to prescribe to women at increased risk (see separate fact sheet on blood clots).

Side-effects and other downsides of raloxifene

- Raloxifene is not suitable for women who still need HRT (hormone therapy) for control of symptoms.
- Side-effects of taking raloxifene include hot flushes, leg cramps and swelling of the legs.

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