Review Article

SSRI & SNRI over Menopausal Hormone Therapy (MHT) - Would be more practical to initiate due to its free availability and affordable price under this economic crisis of Sri Lanka

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Introduction

Vasomotor instability or Vasomotor symptoms (VMS), namely hot flashes and night sweats is the hallmark of menopause, occurring in up to 80% of women. Severe, bothersome symptoms, with up to 20 to 30 episodes daily, affect up to 20% of women. VMS can disturb sleep and can aggravate symptoms of tiredness, depressed mood, and anxiety. They may also be associated with palpitations[1,2].

In Sri Lanka, Gooneratne et al did a cross sectional study on VMS among postmenopausal women and found 87.1% of them had VMS[3]. The presence of menopausal symptoms was significantly associated with a decreased health-related quality of life in women in Sri Lanka[4].
Menopausal hormone therapy (MHT) is the most effective option for the management of VMS[5,6]. In a Cochrane systematic review of randomized controlled trials, MHT, either estrogen alone or estrogen plus a progestogen, was found to significantly reduce hot flashes frequency by 75% (95% CI 64.3−82.3) compared with placebo, as well symptom severity (odds ratio [OR]0.13; 95% CI 0.07−0.23)[6].

However, emerging guidelines recommend starting MHT as the first line treatment for VMS because of its more health benefits than risks, some clinicians are still reluctant to start MHT for women because of still uncertainty of safety profile. Moreover, the price of MHT is not affordable with current economic crisis in Sri Lanka and most of the products are not available in Sri Lankan pharmaceutical market. Furthermore, Ministry of health in Sri Lanka does not have budget capacity to provide MHT for postmenopausal women.

SSRI (Selective serotonin reuptake inhibitors) and SNRI (Serotonin norepinephrine reuptake inhibitors) are one of the best alternatives for MHT. It has shown the improvement of VMS significantly with SNRI (60-64% of VMS improvement)[7]. In addition, it improves insomnia, quality of life and mood[7].

Mechanism of Action of SSRI and SNRI

The exact mechanism of action for SSRIs and SNRIs are unknown. Both serotonin and norepinephrine can directly and indirectly influence the thermoneutral zone via a central and peripheral mechanism. The current thinking suggests that, as estrogen levels decline, norepinephrine levels increase, which causes an increase in hypothalamic serotonin receptors, and further narrowing of the thermoneutral zone. When women take SSRIs, there is an increase in serotonin levels within the brain leading to a widening of the thermoneutral zone and an improvement in vasomotor symptoms.Because hot flashes and depression seem to be connected, it is difficult to determine whether SSRIs help with the vasomotor symptoms, or depression, or both.

Fluoxetine and paroxetine inhibit cytochrome P450 and may reduce the

active metabolite of tamoxifen; avoid concurrent use. This interference causes decreased efficacy of tamoxifen and can potentially increase reoccurrence of breast cancer[7].

Table 01 - SSRI & SNRI Efficacy for VMS

Drug	Reduction in hot flushes [NB2]	Other symptoms improved
Serotonin and noradrenaline reuptake inhibitors (SNRIs)		
desvenlafaxine [NB3]	64%	sleep quality of life mood
venlafaxine	60%	sleep quality of life mood
Selective serotonin reuptake inhibitors (SSRIs)		
escitalopram [NB3]	50 to 60%	sleep quality of life mood
citalopram [NB3]	43 to 50%	mood
paroxetine [NB4]	40 to 56%	mood sleep (with low dosages)
fluoxetine [NB3] [NB4]	36 to 50%	quality of life mood

Adverse Effects from SNRI

Common (>1%)

Nausea, dry mouth, constipation, yawning, sweating, dizziness, increased blood pressure (infrequent with duloxetine), weakness, sexual dysfunction (e.g., impotence), decreased libido, somnolence, insomnia, headache, blurred vision, mydriasis (infrequent with duloxetine), tremor, decreased appetite, rash.

Infrequent (0.1–1%)

Orthostatic hypotension and fainting, palpitations, tachycardia, abnormal liver function tests, hyponatraemia (usually occurs early in treatment, may be asymptomatic, and is part of SIADH)

Suitable SSRI Regimens Include

Citalopram 10 mg orally in the morning, increasing if needed every 2 to 4 weeks to a maximum of 20 mg once daily.

OR

Escitalopram 5 mg orally in the morning, increasing if needed every 2 to 4 weeks to a maximum of 20 mg once daily.

OR

Fluoxetine 10 mg orally, in the morning, increasing if needed every 2 to 4 weeks to a maximum of 30 mg once daily.

OR

Paroxetine 10 mg orally, in the morning, increasing if needed every 2 to 4 weeks to a maximum of 20 mg once daily for vasomotor symptoms.

Suitable SNRI Regimens Include

Desvenlafaxine 50 mg orally in the morning, increasing if needed every 2 to 4 weeks to a maximum of 150 mg.

OR

Venlafaxine 37.5 mg orally, in the morning, increasing if needed every 2 to 4 weeks to a maximum of 75 mg once daily.

Conclusion

It is safer and cost effective to prescribe SSRI/SNRI for postmenopausal women who suffers with VMS to enhance the quality of life as an alternative for MHT.

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