



A review of Fezolinetant for management of menopausal vasomotor symptoms

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Introduction

Vasomotor symptoms (VMS), may have a significant impact on quality of life for a proportion of menopausal women.

Fezolinetant is a novel, non-hormonal treatment for management of menopausal VMS which has recently been approved by the TGA. It's mechanism of action is in the hypothalamus at the thermoregulatory centre where it works as a neurokinin 3 receptor antagonist to regulate hot flushes and night sweats.²

Fezolinetant may provide an alternative or adjunct treatment in patients for whom menopause hormonal therapy is contraindicated.

Aims

To review the literature to ascertain the efficacy of fezolinetant, its safety profile and indications.

Methods

Trials were identified by searches of medical databases (MEDLINE, Pubmed, CENTRAL and Embase). Additional trials were identified from reference lists in previous studies, systematic reviews, and current trials.

Primary endpoints included: change in postmenopausal vasomotor symptoms and treatment related adverse events.

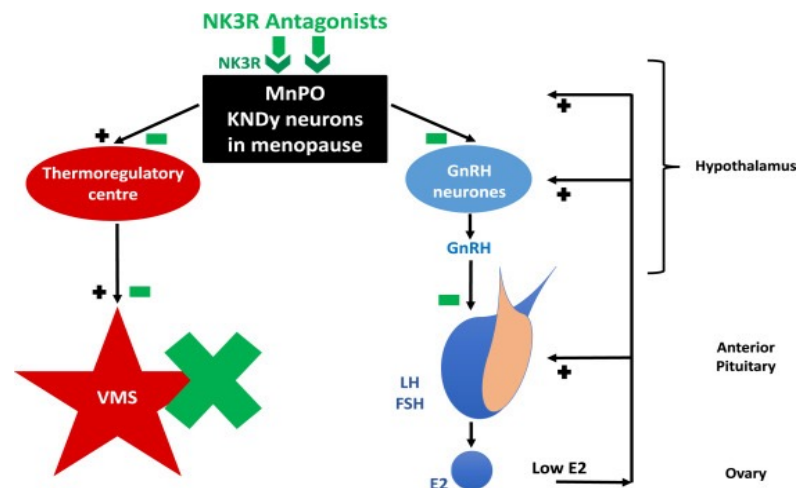


Figure 1: Mechanism of action of NK3R Antagonists¹

Results

Data from 3 large randomised control trials was examined^{3,4,5}. Dose regimes varied across the trials.

Fezolinetant was shown to significantly reduce the frequency and severity of VMS compared to placebo and conventional non-hormonal menopausal treatments. Self-reported improvements in menopause related sleep disturbance were also observed in one study.

Adverse event rates were generally rare. Hepatotoxicity was reported in a small percentage of patients but was largely transient and dose dependent.

There was minimal data on longer term outcomes including bone health, cardiovascular function, mental well-being, and sexual health.

Discussion

This abstract emphasises the clinical relevance of Fezolinetant as a therapeutic option for menopausal VMS, especially for patients with contraindications or preferences against estrogen-based interventions.

There may be bias in the results due to use of patient diaries and questionnaires to assess response however there is no other objective measure of vasomotor symptoms. One study also reported a 37% treatment-emergent side effect rate in the placebo group, demonstrating the subjectivity of the findings.

Heterogeneity in dose regimes should also be addressed in future clinical trials to make these results clinically applicable. Longitudinal studies are needed to ascertain the effects of Fezolinetant on bone health, cardiovascular function, mental and cognitive wellbeing and sexual health.

References

1. Patel, B., & S. Dhillon, W. (2022). Menopause Review: Emerging treatments for menopausal symptoms. *Best Practice & Research Clinical Obstetrics & Gynaecology*, 81, 134–144.
2. DePree, B. (2023). Fezolinetant: A potential treatment for moderate to severe vasomotor symptoms of menopause. *touchREVIEWS in Endocrinology*, 19(2), 13. doi:10.17925/ee.2023.19.2.13
3. Lederman, S. et al (2023). Fezolinetant for treatment of moderate-to-severe vasomotor symptoms associated with menopause (skylight 1): A phase 3 randomised controlled study. *The Lancet*, 401(10382), 1091–1102.
4. Johnson, K. A. et al (2023). Efficacy and safety of Fezolinetant in moderate to severe vasomotor symptoms associated with menopause: A phase 3 RCT. *The Journal of Clinical Endocrinology & Metabolism*, 108(8), 1981–1997.
5. Santoro, N. et al (2020). Effect of the neurokinin 3 receptor antagonist fezolinetant on patient-reported outcomes in postmenopausal women with vasomotor symptoms: Results of a randomized, placebo-controlled, double-blind, dose-ranging study (vesta). *Menopause*, 27(12), 1350–1356.