



Tesofensine

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Tesofensine (TE), is a serotonin-noradrenaline-dopamine reuptake inhibitor from the phenyltropane family of drugs. Acting primarily as an appetite suppressant, TE may also increase resting energy expenditure, aiding in more rapid weight loss. Originally investigated for the treatment of Alzheimer's disease and Parkinson's disease, Tesofensine was dropped from development for these applications after early trials showed only limited efficacy for treatment of the diseases. However, weight loss was reported in the original studies, especially among overweight or obese patients, so it was decided to pursue the development of TE for the treatment of obesity.

Methods

161 (79%) of participants completed the study. After 24 weeks, the mean weight loss produced by diet and placebo was 2.0% (SE 0.60). Tesofensine 0.25 mg, 0.5 mg, and 1.0 mg and diet induced a mean weight loss of 4.5% (0.87), 9.2% (0.91), and 10.6% (0.84), respectively, greater than diet and placebo ($p < 0.0001$).

Results

Results suggest that Tesofensine 0.5mg (500mcg) may have the potential to produce a weight loss twice that of currently approved drugs.

Conclusion

TE has cause and effect on appetite sensation and a slight impact on energy expenditure at night. Both of the above can contribute to the strong weight-reducing effect of TE.

A survey of test subjects also indicated:

- Appetite being affected (they found themselves not as hungry at mealtimes)
- They were satisfied eating smaller meal portions
- They had less of a desire for sweet, salty, and fatty foods