

Potential to Optimize Weight Loss with Enobosarm: Meta-analysis of Body Composition from Three Randomized Clinical Trials Support the Ability of Enobosarm to Preserve Muscle while Reducing Fat

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FINANCIAL DISCLOSURES

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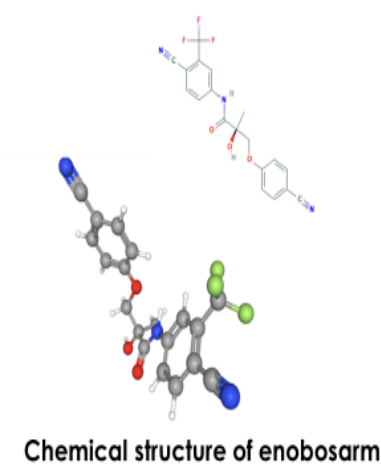
BACKGROUND

Enobosarm is a novel oral selective androgen receptor modulator shown to increase lean mass and decrease fat mass. Enobosarm may benefit patients on GLP-1 RA for weight loss by preserving muscle while augmenting fat loss.

 Enobosarm is a novel oral selective androgen receptor modulator (SARM) designed to reduce fat mass and increase lean mass (muscle and bone)

- Enobosarm (Ostarine, MK2866, GTX-024) is a nonsteroidal, selective androgen receptor modulator^{1,2}
- Data from clinical trials and preclinical studies support enobosarm's potential:

- Once-a-day oral dosing
- Activates the androgen receptor, a well-established mechanism
- Tissue selective
 - Improves muscle mass and physical function^{2,4}
 - Stimulates lipolysis, inhibits lipogenesis, and decreases fat mass^{7,8}
 - Builds and heals bone-potential to treat bone loss/osteoporosis^{3,5}



- Safety
 - Lack of masculinizing effects
 - Not converted to estrogen or dihydrotestosterone
 - No liver toxicity

OBJECTIVE

A meta-analysis was conducted of three randomized clinical studies of enobosarm involving older men, postmenopausal women, and older patients who have muscle loss due to advanced cancer, to evaluate the ability of enobosarm to preserve muscle while reducing fat.

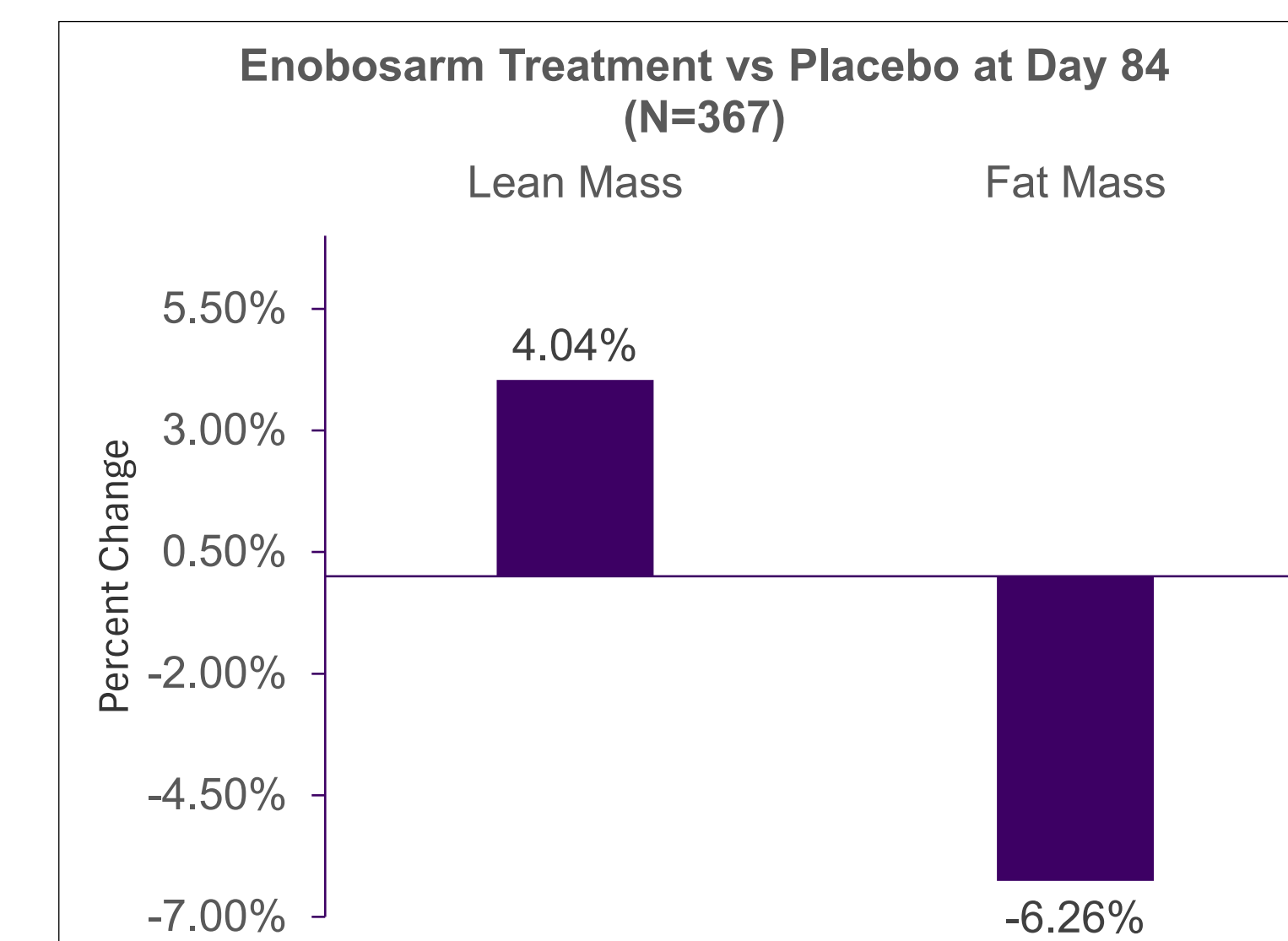
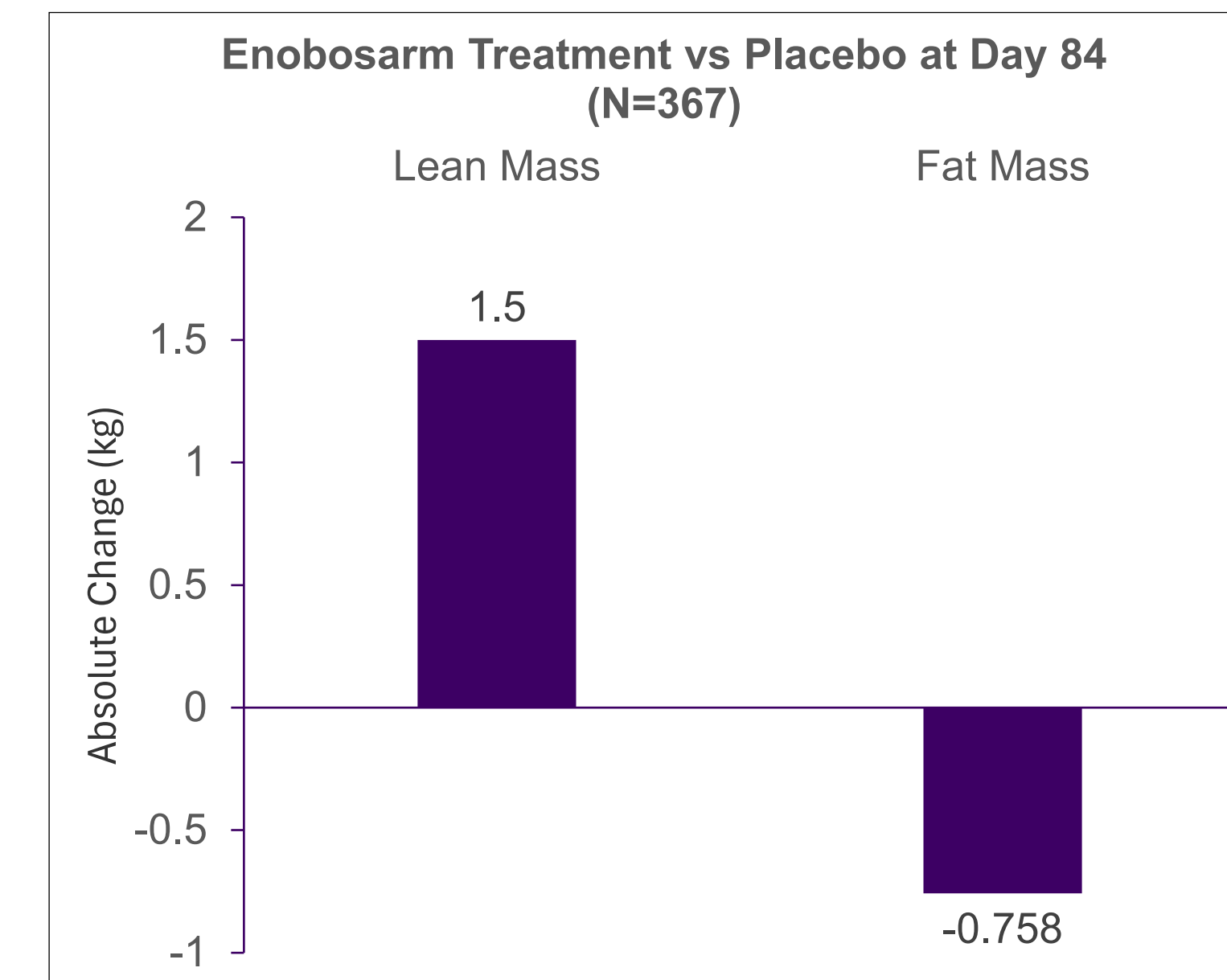
METHODS AND MATERIAL

Meta-analysis was conducted of 3 randomized clinical trials evaluating enobosarm 3mg q day versus placebo and who had a Day 84 DXA scan to assess body composition: Phase 2 501 study in older males (>60 yo) and postmenopausal women (n= 24 placebo and 24 enobosarm), Phase 2 502 study in patients with muscle wasting because of advanced cancer (n=30 placebo and 31 enobosarm), and Phase 3 504 study in patients with advanced lung cancer (n=135 placebo and 124 enobosarm).

RESULTS

At Day 84, DXA scan showed an absolute increase in lean mass of 1.5 kg in enobosarm treated vs placebo (p=0.00004), and % change in lean mass of a 4.04 % in enobosarm vs placebo (p=0.00007). Absolute decrease in fat mass was 0.758 kg in enobosarm treated vs placebo (p=0.015), and % change in fat mass was a loss -6.26 % in enobosarm vs placebo (p=0.006). Enobosarm was generally well tolerated with no increase in frequency of gastrointestinal side effects compared to placebo.

RESULTS



CONCLUSION OR DISCUSSION

In meta-analysis of 367 older men, postmenopausal women, and older patients with muscle loss from advanced cancer, enobosarm therapy resulted in reductions in fat mass while preserving lean mass. This meta-analysis supports the potential of enobosarm when combined with a GLP-1 RA to preserve muscle, while preferentially reducing fat to potentially result in a higher quality weight loss in overweight and obese patients. A Phase 2b randomized controlled trial is currently underway to evaluate the safety and efficacy of enobosarm in preserving muscle mass and augmenting fat loss in older patients receiving a GLP-1 RA for weight loss.

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