

Abstract

Fertil Steril. 2006 May;85(5):1409-14.

Carnitine for the treatment of idiopathic asthenospermia: a randomized, double-blind, placebo-controlled trial.

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OBJECTIVE: To determine the effect of oral carnitine supplementation on the semen parameters of men with idiopathic asthenospermia.

DESIGN: Prospective, randomized, double-blind placebo-controlled study.

SETTING: Academic tertiary referral centers.

PATIENTS: Male patients presenting with infertility and with sperm motility of 10%-50% were selected.

INTERVENTION: Patients were randomized to 24-week treatment arms of oral carnitine (2,000 mg L-carnitine and 1,000 mg L-acetyl-carnitine per day) or placebo.

MAIN OUTCOME MEASURES: Sperm motility and total motile sperm counts at baseline, 12 weeks, and 24 weeks. Seminal plasma and sperm free, acetyl, and total L-carnitine levels at baseline and at week 24.

RESULTS: Twenty-one patients entered the study, with 12 patients in the carnitine arm and 9 in the placebo arm. There were no significant differences in baseline semen parameters between the carnitine and placebo arms. There was no statistically significant or clinically significant increase in motility or total motile sperm counts between baseline, 12 week, or 24 weeks in the carnitine or placebo arms.

CONCLUSION: Carnitine supplementation demonstrated no clinically or statistically significant effect on sperm motility or total motile sperm counts in men with idiopathic asthenospermia.

PMID: 16600222

