

Abstract

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Coenzyme Q(10) supplementation in infertile men with idiopathic asthenozoospermia: an open, uncontrolled pilot study.

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OBJECTIVE: To clarify a potential therapeutic role of coenzyme Q(10) (CoQ(10)) in infertile men with idiopathic asthenozoospermia.

DESIGN: Open, uncontrolled pilot study.

PATIENTS: Infertile men with idiopathic asthenozoospermia.

INTERVENTION: CoQ(10) was administered orally; semen samples were collected at baseline and after 6 months of therapy.

MAIN OUTCOME MEASURE: Semen kinetic parameters, including computer-assisted sperm data and CoQ(10) and phosphatidylcholine levels.

RESULT: CoQ(10) levels increased significantly in seminal plasma and in sperm cells after treatment. Phosphatidylcholine levels also increased. A significant increase was also found in sperm cell motility as confirmed by computer-assisted analysis. A positive dependence (using the Cramer's index of association) was evident among the relative variations, baseline and after treatment, of seminal plasma or intracellular CoQ(10) content and computer-determined kinetic parameters.

CONCLUSION: The exogenous administration of CoQ(10) may play a positive role in the treatment of asthenozoospermia. This is probably the result of its role in mitochondrial bioenergetics and its antioxidant properties.

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