

Abstract

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Supplemental ubiquinol in patients with advanced congestive heart failure.

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OBJECTIVES: Patients with CHF, NYHA class IV, often fail to achieve adequate plasma CoQ10 levels on supplemental ubiquinone at dosages up to 900 mg/day. These patients often have plasma total CoQ10 levels of less than 2.5 microg/ml and have limited clinical improvement. It is postulated that the intestinal edema in these critically ill patients may impair CoQ10 absorption.

METHODS: We identified seven patients with advanced CHF (mean EF 22%) with sub-therapeutic plasma CoQ10 levels with mean level of 1.6 microg/ml on an average dose of 450 mg of ubiquinone daily (150-600 mg/day). All seven of these patients were changed to an average of 580 mg/day of ubiquinol (450-900 mg/day) with follow-up plasma CoQ10 levels, clinical status, and EF measurements by echocardiography.

RESULTS: Mean plasma CoQ10 levels increased from 1.6 microg/ml (0.9-2.0 microg/ml) up to 6.5 microg/ml (2.6-9.3 microg/ml). Mean EF improved from 22% (10-35%) up to 39% (10-60%) and clinical improvement has been remarkable with NYHA class improving from a mean of IV to a mean of II (I to III).

CONCLUSIONS: Ubiquinol has dramatically improved absorption in patients with severe heart failure and the improvement in plasma CoQ10 levels is correlated with both clinical improvement and improvement in measurement of left ventricular function.

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