Supplemental ubiquinol in patients with advanced congestive heart failure

Peter H. Langsjoen
Alena M. Langsjoen

First published: 07 April 2009
https://doi.org/10.1002/biof.5520320114
Cited by: 33

Abstract

Patients with CHF, NYHA class IV, often fail to achieve adequate plasma CoQ$_{10}$ levels on supplemental ubiquinone at dosages up to 900 mg/day. These patients often have plasma total CoQ$_{10}$ levels of less than 2.5 μg/ml and have limited clinical improvement. It is postulated that the intestinal edema in these critically ill patients may impair CoQ$_{10}$ absorption. We identified seven patients with advanced CHF (mean EF 22%) with sub-therapeutic plasma CoQ$_{10}$ levels with mean level of 1.6 μg/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 CoQ$_{10}$ levels, clinical status, and EF measurements by echocardiography. Mean plasma CoQ$_{10}$ levels increased from 1.6 μg/ml (0.9–2.0 μg/ml) up to 6.5 μg/ml (2.6–9.3 μg/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). Ubiquinol has dramatically improved absorption in patients with severe heart