

***Faculty of Medicine***

***Department: Parasitology***

***Name: Ahmed A. Othman***

***Title: Experimental schistosomal hepatitis: Protective effect of coenzyme-Q10 against the state of oxidative stress***

***Authors: Ahmed A. Othman, Zeinab S. Shoheib; Fhada A. Abdel-Aleem & Mohamed M. Shareef***

***Published In: Experimental Parasitology,120,147 (2008)***

***Impact Factor:1.108***

***Abstract:***

Schistosoma mansoni (S. mansoni) eggs trapped in the host liver elicit a chain of oxidative processes that may be , at least in part, responsible for the pathology and progression of fibrosis associated with schistosomal hepatitis. This study was designed to assess the protective effect of the antioxidant coenzyme-Q10(Co-Q10) against experimental S. mansoni-induced oxidative stress in the liver , and its potential role as an adjuvant to praziquantel (PZQ) therapy. The oxidative stress and overall liver function were improved under Co-Q10 therapy as evidenced by significant reduction in oxidative stress markers and preservation of antioxidant factors. Liver fibrosis was also reduced with a positive impact on liver function. Moreover, addition of Co-Q10 to PZQ therapy caused: significant reduction of liver egg load, significant improvement of the redox status, and lastly decreased liver fibrosis.

***Key words:***

Oxidative stress, schistosoma, antioxidant, liver fibrosis, coenzyme-Q10, hepatic & hepatic stellate cells.