Lower levels of coenzyme Q10 in blood associated with multiple system atrophy

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The neurodegenerative disease known as multiple system atrophy (MSA) affects both movement and involuntary bodily functions. Questions have been raised about the potential role of coenzyme Q10 (CoQ10) insufficiency in the development of MSA. Little is known about blood levels of CoQ10 in patients carrying either COQ2 mutations or no mutations.

Shoji Tsuji, M.D., Ph.D., of the University of Tokyo, Japan, and coauthors explored whether there are associations of levels of CoQ10 in the blood and MSA, in a new article published online by JAMA Neurology.

The study included 44 Japanese patients with MSA (average age almost 64) and, for comparison, 39 Japanese control patients (average age about 60).

The authors report their data showed decreased levels of blood CoQ10 in patients was associated with MSA regardless of the COQ2 genotype. The authors suggest this may support the idea that CoQ10 supplementation may be beneficial for patients with MSA. However, they acknowledge study limitations and caution that more studies are needed.

"Prospective cohort studies are warranted to determine the longitudinal effects of plasma levels of CoQ10 on the development of MSA. Furthermore, future clinical trials of supplementation with CoQ10 in patients with MSA are required to confirm our hypothesis," the article concludes.

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