Clinical applications of alpha-lipoic acid in the management of neurological disorders besides carpal tunnel syndrome

To the editor,

the recent article by Di Geronimo et al was highly interesting. The Authors have clearly demonstrated the efficacy of alpha-lipoic acid in the treatment of carpal tunnel syndrome. The findings of Di Geronimo et al are highly important as they further highlight the rapidly expanding role of alpha-lipoic acid in the management of other neurological conditions besides carpal tunnel syndrome.

For instance, the DEKAN study has shown that daily administration of alpha-lipoic acid in patients with type II diabetes mellitus has a positive impact in decreasing the evolution and progression of autonomic neuropathy in cardiac tissue. Similarly, alpha-lipoic acid administration results in accentuated frataxin production and thereby protects peripheral nervous tissue from the adverse effects of chemotherapeutic agents such as cisplatin.

Alpha-lipoic acid also attenuates the detrimental effects of oxidants on neuronic mitochondria and thereby decreases the impact of age on brain tissue. Similarly, alpha-lipoic acid attenuates the formation and collection of nitrotyrosine in retinal cells and thereby decreases the visual deterioration in retinopathies such as diabetic retinopathy. Alpha-lipoic acid may also have a beneficial role to play in the treatment of psychological conditions such as depression.

Alpha-lipoic acid may rarely be associated with major side effects such as insulin autoimmune syndrome. Despite this, alpha-lipoic acid promises to be a major new adjunct in the management of neurological diseases.

References


Shailendra Kapoor MD
University of Illinois at Chicago, Chicago, IL (USA)
E-mail: shailendrakapoorn@yahoo.com