

R400

Publication Only

Public Health: Public health and community-acquired infections

Efficacy of coenzyme Q10 in community-acquired pneumonia in the elderly

A. Farazi¹, M. Sofian¹, B. Nayebzadeh¹, M. Jabbariasl¹

¹Infectious diseases, Arak University of Medical Sciences, Arak, Iran

Background: Community-acquired pneumonia (CAP) is generally considered a major cause of morbidity and mortality in the elderly. This study assessed the efficacy of adjunctive Coenzyme Q₁₀ treatment in elderly patients hospitalized with CAP.

Methods: Hospitalized elderly patients, clinically and radiologically diagnosed with CAP using standard clinical and radiological criteria, were randomized to receive 120 mg Coenzyme Q₁₀ for 14 days or placebo, along with antibiotics. Primary and secondary outcomes on days 3, 7 and 14 were measured. Disease severity was scored using CURB-65 Index. Statistical analysis was performed using SPSS software, and P-value < 0.05 was significant.

Results: We enrolled 150 patients. Finally, 141 patients, including 70 patients in the intervention group and 71 patients in the control group were analyzed. Mean age of two groups were 67.6±7.2 and 68.7±7.9 respectively. Clinical cure at Days 3 and 7 was 24/70 (34.3%) and 62/70 (88.6%) in the Coenzyme Q₁₀ group and 22/71 (31%) and 52/71 (73.2%) in the placebo group (P-value=0.6745 and 0.0209). Patients on Coenzyme Q₁₀ had faster defervescence and faster decline in serum C-reactive protein levels compared with placebo. Subanalysis of patients with severe pneumonia showed differences in clinical cure at Day 14. Treatment failure was less in the Coenzyme Q₁₀ group (7 patients, 10%) than in the placebo group (16 patients, 22.5%; P-value=0.0440). Adverse events were few and not different between the two groups.

Conclusion: Coenzyme Q₁₀ can improve outcome in hospitalized elderly patients with CAP and should be recommended as routine adjunctive treatment in elderly patients.