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## Study of zinc level and its effect on CD4/CD8 ratio in the elderly before and after zinc supplementation

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**Introduction & Aim:** The interaction between immunity, infection and mortality in older people is of considerable scientific and clinical significance. Proper nutrition including adequate dietary zinc intake or supplementation could play an important role in the prevention or reduction of infectious diseases in these populations. Aim of this study was to estimate the plasma zinc level in a group of healthy elderly to find out its effect on CD4/CD8 ratio before and after zinc supplementation.

**Method:** Subjects that were included in this study were 20 healthy elderly subjects aged 65 years and older and 10 healthy young subjects aged 20-30 years as a control group. In the elderly group serum zinc and CD4/CD8 ratio were measured before and after zinc supplementation.

**Results:** There was a significant statistical decrease in serum zinc and CD4/CD8 ratio in the elderly group compared to the young group before zinc supplementation ( $p_1 < 0.001$ ,  $p_1 = 0.005$ ). After one month of zinc supplementation, there was a significant statistical increase in the serum zinc and CD4/CD8 ratio in the elderly group ( $p_2 < 0.001$ ,  $p_2 < 0.001$ ).

**Conclusion:** Aging is associated with decrease of serum zinc and CD4/CD8 ratio and these conditions can be reversed by zinc supplementation.

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