

Correlation between Se, Zn levels and survival among prostate cancer patients.

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Abstract:

Prostate cancer (PC) is the most common cause of cancer in men. Survival is considered quite good but can be further improved when risk factors are optimized. One of them are micronutrients including Selenium (Se) and Zinc (Zn). Accordingly, to our knowledge, the interaction of Se, Zn and PC remains undescribed. The study aimed to investigate the optimal ratios of Se and Zn levels and their contribution to survival in PC patients. The study included 338 PC patients recruited in Poland, between 2009 and 2015. Sera levels of elements have been studied before treatment using ICP-MS. The study group was assigned to one of the quartiles (QI-QIV) based on the distributions of Se and Zn levels. In order to estimate the relationship between serum Se and Zn levels and PC survival- COX proportional hazard regression models were used. Our results show the effect of combined Se and Zn levels on survival in PC patients (SeQI-ZnQI vs SeQIV-ZnQIV; HR= 20.9). Therefore, we are conducting a trial to prove this statement. This also reveals the need for further efforts to establish norms for different populations.