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CORRESPONDENCE

Other haematological changes may occur in the elderly accordingly to nutritional status

Dear Sir,

We read with great interest on the *Clinical Nutrition* the article entitled "Lack of correlation between total lymphocyte count and nutritional status in the elderly" by Kuzuya et al.[1] The authors, while investigating biochemical and anthropometric correlates of nutritional status in the elderly, underscored the absence of a relationship with total lymphocytes count (TLC) indicating itself as not a suitable marker of malnutrition.

These results are likely to be shocking as long as reduced TLC is commonly considered a negative prognostic factor for mortality in older person.

In agreement with their statement, with the present letter we would like to add something about haematological changes that may occur accordingly to nutritional status.

In our personal analysis on 106 long-term-care resident elders (24 males and 82 females; mean age $\pm$SD: 85 $\pm$ 8.5; range: 64–100 years), we observed similar findings when assessing nutritional status by Mini Nutritional Assessement (MNA).[2] All anthropometric (triceps skinfold, arm circumference, arm muscular area) and biochemical variables (serum albumin, pre-albumin, transferrin, ferritin, total iron binding capacity) were significantly (unweighted linear regression model; GraphPad 3.0 Software, San Diego CA) correlated with MNA score to exception of TLC. Moreover a statistically significant negative relationship ($P<0.002$) was detected between MNA score and platelets count (mean $\pm$ SD: 254 $\pm$ 70.3; range: 153–457 $\times$ 10^9/L).

Aging is characterized by progressively increasing concentrations of glucocorticoids and catecholamines and this results in elevated concentrations of proinflammatory cytokines (e.g. interleukin-6).[3] The cytokines themselves, as mirror of frequently incoming diseases in elders, have profound metabolic effects such as weight loss and cachexia induction.[4] Also inflammatory thrombocytosis, as long as acute phase response, is thought to be related to the pleiotropic activity of interleukin-6.[5]

The number of platelets by themselves might be not the sole determinant of coagulation; also many other acute phase response proteins can play a role. Thus, if the present observation cannot directly give evidence of an enhancement in prothrombotic state, this haematological change might be taken into account for possible health complications in fragile elders experiencing malnutrition.

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