Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Good nutrition critical to prevent Covid 19 mortality

Important paper

I read with interest your paper by Cinar et al. on prognostic nutritional index and mortality in 294 Turkish Covid 19 patients.[1] This paper reports that patients in the lowest tertile of prognostic nutrition index (PNI- based on serum albumin and lymphocytes) had a 18.2 fold unadjusted greater risk of death (OR 18.2, 95% CI 10.2−64.1) and a 12.2 adjusted greater risk of death adjusted for cofactors (OR 12.2, 95% CI 4.4−28.1) as compared to the highest tertile.[1]

Covid 19 malnutrition common

Numerous studies have reported that malnutrition is common in Covid 19 patients. Bedock reported that 42.4% of 114 French hospitalized Covid 19 patients were malnourished.[2] Wei reported that 86.2% of 348 Hospitalized Chinese Covid 19 patients were malnourished (39.9% moderate to severe malnutrition, 46.3% mild malnutrition).[3]

Other Covid 19 nutrition studies

Other studies also report that better patient nutrition may improve Covid 19 patient survival. Another Turkish study of 397 Covid 19 patients reported that those in the lowest tertile of nutritional PNI had an 18 fold increased risk of death as compared to the lowest PNI tertile (OR 18.57, 95% CI 4.39−78.65).[4] A Chinese study of 450 hospitalized Covid 19 patients reported that lower PNI was associated with significantly higher mortality ($p<0.001$).[5] Wei reported that lower nutritional status (as measured by CONUT Score) in Covid 19 patients was associated with significantly higher mortality (OR 1.41, 95% CI 1.089−1.825, $p = 0.009$).[3]

Specific nutrients may improve Covid 19 survival

While good overall nutrition is essential to recover from Covid 19 and other serious infections, specific nutrients may be especially helpful. A meta-analysis of 27 published studies reported that vitamin D insufficiency was associated with increased hospitalization (OR= 1.81, 95% CI 1.41−2.21) and increased mortality from Covid 19 (OR= 1.82, 95% CI 1.06−2.58).[6] A German study reported that serum selenium was significantly lower in Covid 19 patients who died versus those who survived.[7] Other studies have reported better nutrition and/or supplementation with a wide range of nutrients such as Ω−3 fats, amino acids, zinc, vitamins C & E may be useful in both preventing and treating Covid 19 and other serious infections.[8-12]

Conclusion

Improved Hospital Nutrition Can Prevent Many Covid 19 Related Deaths. I hope Heart and Lung can continue to publish good papers on better nutrition and improved outcomes for many health conditions.

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