Nutritional Status of Covid-19 positive patients.

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OBJECTIVE: Nutritional status can influence the effectiveness of the immune response in Covid-19 positive patients.

METHODS: We proposed a questionnaire in the form of telephone interview to a group of 133 patients, 60 females (45,1%) and 73 males (54,9%) with Sars-Cov-2 infection during the first wave of Covid-19 pandemic in Benevento, a city of Campania Region (South Italy). The patients, non-hospitalized, were classified into three groups: asymptomatic; paucisymptomatic (patients with anosmia and/or dysgeusia and/or asthenia and/or low-grade fever and/or headache and/or myalgia); mild-moderate symptomatic (TB > 37,5 C° and/or cough and/or dyspnea). Patients answered questions about their eating practise and, in particular, about their practise of consuming: fruits and vegetables (sources of vitamins and minerals), oily fish, nuts and seeds (omega-3 and vitamin D), yogurt (probiotics), wholegrain cereals (fibers and B vitamins). Each of the four categories of anti-inflammatory foods is assigned a value of 2.5. The overall score is equal to 10 for patients who regularly consume these products. In addition, patients should indicate whether they are taking vitamin supplements.

RESULTS: 133 patients were interviewed: 97 (73%) were asymptomatic, 23 (17%) pauci-symptomatic, 13 (10%) with symptoms mild- moderate. Among asymptomatic patients, 65 said they regularly consume each category of foods totaling (score 10/10). 18 patients totaled a score of 7.5 (3 food categories of 4 consumed habitually), 7 patients reported consuming two categories of anti-inflammatory foods, 2 patients consumed only one of these and 5 patients totaled a score of 0. In the group of pauci-symptomatic patients, only 3 patients got a score of 7.5, the same for score of 5, only one got a score of 10. 2 patients not consumed nothing about anti-inflammatory foods groups. The remaining 14 declared that they regularly consume only one of the categories of food indicated (score 2.5).Of the 13 patients with mild-moderate symptoms, 9 got a score of 0. Only one patient scored 2.5 and another totaled 10/10 score. 2 patients declared that they consume two categories of anti-inflammatory foods. Nobody scored 7.5 score. Also, 80% of patients declared that they are overweight.

Tabella 1	Asymptomatic	Paucisymptomatic	Symptomatic
score 10/10	65 (67%)	1 (4%)	1 (8%)
score 7.5/10	18 (19%)	3 (13%)	0 (0%)
score 5/10	7 (7%)	3 (13%)	2 (15%)
score 2.5/10	2 (2%)	14 (61%)	1 (8%)
score 0/10	5 (5%)	2 (9%)	9 (69%)

CONCLUSION: The relationship between immunity and nutrition is well known. The daily intake of foods rich in vitamins, minerals, fiber and probiotics supports to enhance the intestinal microbiota who is essential for immune defenses. This suggests that a more effective immune response may be evidenced in patients with an optimal nutritional status. However, more precise studies and additional research are needed.