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Majority of study sample were not prescribed MVT due to lack of knowledge. Major proportion was not receiving adequate energy and proteins for their requirement.

Conclusion: From the study sample majority were not prescribed MVT. Majority of the sample were not receiving adequate energy and proteins. The reasons for not prescribing the supplements were due to lack of knowledge of the medical professional, unavailability of the supplements in the hospital and over work in the wards.

Steps should be taken to educate the surgical team about the importance of prescription of MVT. Making available the above supplements will also leads to more prescription of the vitamins and minerals.

Disclosure of Interest: None declared.

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NUTRITIONAL RISK OF FISH DIET - OXIDATIVE STRESS INDUCED BY DIETARY MERCURY EXPOSURE

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Rationale: Chronic exposure to methylmercury deserves special attention considering the global increased fish and shellfish consumption. Mercury's high affinity to glutathione causes oxidative stress augmentation generating systemic toxicity even in low doses.

Methods: We performed a prospective observational study which included 67 patients in order to evaluate oxidative stress levels produced by methylmercury exposure after fish consumption. They were all screened for mercury blood level. Moreover, vitamin D, selenium, glutathione (GSH), malondialdehyde, superoxide dismutase (SOD) and glutathione peroxidase (GPx) levels were measured to evaluate oxidative stress profile. Statistical analysis was performed using parametric and non-parametric tests with statistical significance set at $p < 0.05$.

Results: In the study group mean age was 47.4 years and the male to female ratio was 1.2:1. 44 patients had high mercury levels (above 10 ug/L), out of which 38 had an identifiable exposure, namely high fish intake (more than 4 meals per week) or dental amalgam ($n=6$). Spearman correlation revealed that SOD, GPx and malondialdehyde levels were proportional to mercury serum values ($p < 0.001$). Moreover, GSH and vitamin D were inversely correlated to mercury levels ($p < 0.001$). No significantly statistical data was obtained on selenium measurements.

Conclusion: Despite the lack of significant clinical manifestation, chronic exposure to low doses of mercury is responsible for increased oxidative stress, leading to toxicity on high fat tissues such as the nervous system. Promoting fish dietary intake should be tailored on patients' individual characteristics, taking into consideration prior mercury accumulation.

Disclosure of Interest: None declared.

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A CRITICAL UPDATE ON THE ROLE OF MILD AND SERIOUS VITAMIN D DEFICIENCY PREVALENCE AND THE COVID-19 EPIDEMIC IN EUROPE

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Rationale: COVID-19 has emerged as a pandemic, affecting nearly 120 million people worldwide as of March 14th, 2021. In previous studies, the association between the mean Vitamin D (Vit D) concentration of each country and COVID-19 infection and mortality rate in European countries was examined. The aim of this study was to critically evaluate the relationship between Vit D mild and severe deficiency prevalence in each country and COVID-19 infection, recovery, and mortality using updated data and a different methodological approach.

Methods: Information on Vit D concentration/deficiency for each country was retrieved through literature search. As of March 14th, 2021, COVID-19 infections and mortalities per one million population as well as total

recoveries were extracted from the Worldometer website. The association between Vit D deficiency and COVID-19 infection, recovery, and mortality were explored using correlation coefficients and scatterplots.

Results: Non-significant correlations were observed between the number of COVID-19 infections ($r=0.331$; $p=0.166$) and recoveries ($r=0.422$, $p=0.072$) with the prevalence of mild Vit D deficiency (<50 nmol/L). Similarly, non-significant correlations were observed between COVID-19 infections ($r=0.194$, $p=0.045$), mortalities ($r=0.447$, $p=0.063$) and recoveries ($r=0.402$, $p=0.098$) with the prevalence of severe Vit deficiency (<30 nmol/L). Significant correlation ($r=0.539$, $p=0.017$) was found between COVID-19 mortality and prevalence of mild Vit D deficiency.

Conclusion: Prevalence of both mild and severe Vit D deficiency was not significantly associated with the number of infections of COVID-19 among European countries. Thus, it is an important parameter to be considered when implementing preventive measures to face COVID-19.

Disclosure of Interest: None declared.

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THE ASSOCIATION BETWEEN VITAMIN D AND SEVERITY IN COVID-19 PATIENT: SYSTEMATIC REVIEW

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Rationale: Currently, COVID-19 is declared as a pandemic around the world. Therefore, there is a need for therapy to reduce the symptoms and severity from COVID-19. One of the new hypotheses is through vitamin D serum, for which patients with deficient vitamin D claimed to have increased severity in COVID-19 infected patients. Since vitamin D may play an important role to suppress cytokines storm in COVID-19, such as interleukin-1 (IL-1) and interleukin-6 (IL-6). Though the relationship between Vitamin-D and COVID-19 is still not well understood. Therefore the purpose of this systematic review is to find association between vitamin D and severity in COVID-19 patient.

Methods: This research was conducted on 16 – 24 April 2021. Two Independent researchers will systematically extract data from several databases, such as *PubMed Central* (PMC), PUBMED, Science direct and Google Scholar using mesh term such as "Vitamin D Deficiency"[Mesh] AND "Severity of Illness Index"[Mesh] AND "COVID-19"[Mesh] AND "SARS-CoV-2"[Mesh]. Studies that are extracted will be analyzed and selected according to our inclusion criteria such as cohort and cross-sectional studies in the last 10 years. We excluded systematic reviews, meta-analysis, case series, case reports, and studies on animals. Then, the quality of the journal is rated with Newcastle-Ottawa (NOS).

Results: Through several inclusion criteria selection, six journals are suitable for data extraction, with 5 out of 6 journals found a positive association of decreased vitamin D and increased severity of COVID-19 patients, and mean vitamin D in patients with severe severity was below ideal standards. However 1 of 6 journals shows negative association. The severe and moderate COVID-19 patient has a different sample portion, which may explain the research shows negative association.

Conclusion: In conclusion, Vitamin D is an essential factor in the severity and outcome of COVID-19 patients. Patients with vitamin D deficiency have a poor disease course and severe degree of severity. Clinical symptoms differentiate drastically between mild and severe symptoms. Further RCT studies need to be done to confirm the Results.

Disclosure of Interest: None declared.

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EFFECT OF ORAL VITAMINS AND TRACE ELEMENTS SUPPLEMENTATION IN PATIENTS WITH CERVICAL CANCER OVER THE LOCAL CANCER CONTROL AFTER CONCOMITANT CHEMO AND RADIOTHERAPY TREATMENT

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