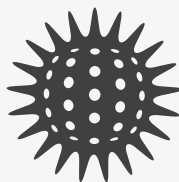
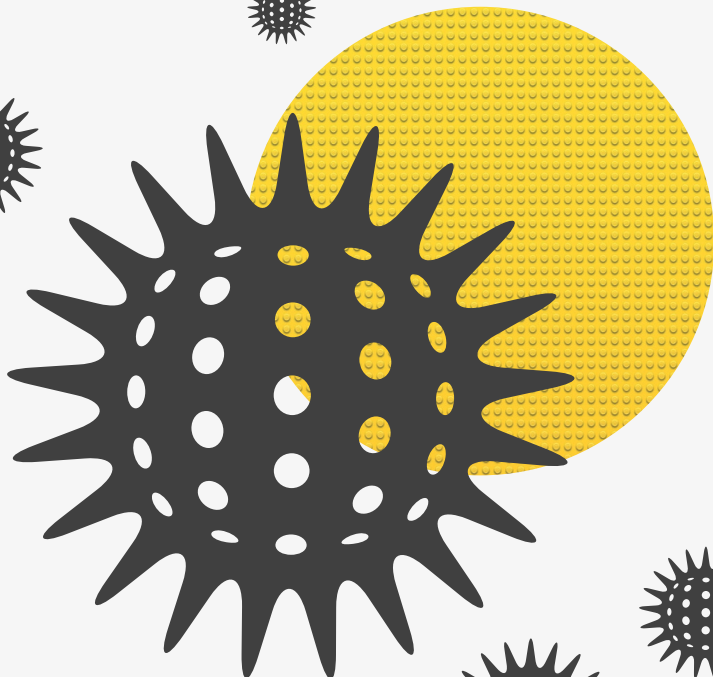


INTEGRATED AND MULTIDIMENSIONAL MANAGEMENT OF THE PATIENT AFFECTED BY COVID-19



Alcarno, 7 / 8
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ABSTRACTS

We are honoured to present you to the conference proceeding of "Integrated and Multidimensional Management of the Patient Affected by Covid-19" which was organised on October 7/8, 2022 in Alcamo

Physical activity in long-COVID-19 patients

Luca Scalisi

Centro Medico di Fisioterapia "Villa Sarina", Alcamo, Italy
Corresponding Author: luca.scalisi@villasarina.com

Abstract

According to a recent report on the prevalence of sarcopenia in intensive care units, some research documented that after the COVID-19 acute phase, 58% of the patients complained of sarcopenia problems and significant reduction in body mass. Sarcopenia can develop in a variable time from 1 to 6 months and beyond. The extent of the muscle loss is influenced by several factors. One of the causes originating sarcopenia in COVID-19 infection is linked to the anomalous development of pro-inflammatory cytokines. Particularly in the older subjects, the latter could influence the changes occurring in the body affecting the skeleton and the muscular tissue during SARS-CoV-2 infection (1). Then, how to alleviate the negative consequences of the pathology on mental and physical health? The answer to this question could be to favor the regular practice of physical exercise. The latter, in addition to having a fundamental function during rehabilitation, has the ability to alleviate psychological suffering, thus improving the quality of life (2). Physical exercises decrease the levels of stress hormones, such as adrenaline and cortisol, and increase the concentration of positive hormones, endorphins, and brain-derived neurotrophic factors making people happy, relaxed, and optimistic (3). The fundamental role of physical exercise for long-COVID patient rehabilitation has been reported. The US Guideline of physical activity for adults recommend a moderate-intensity exercise weekly. Also under chronic medical conditions, physical activity is strongly suggested. 150-to-300 min a week represents an optimum time for exercise. Emerged data suggest that daily exercise may contribute also to reduce acute respiratory distress syndrome in healthy people, and in COVID-19 and long-COVID patients. The COVID-19 pandemic has modified the way people approach physical activity. In many countries, gyms have been closed as a measure to prevent the spread of infections. Consequently, home fitness and outdoor activities have increased in popularity because of more safety and these choices look to be the new normality in the next future. Yoga, pilates, and aerobic exercises do not require particular equipment and space and can be easily practiced at home. Aerobic exercise reduces the risk of many health conditions, ranging from heart disease to brain disorders. While all forms of physical activity provide some benefits, aerobic exercise is particularly effective because it makes the brain, heart, and lungs work harder than usual. The nutritional regimen can also help in improving emotional health. Several researches indicated that the assumption of plant-based foods, particularly those ones containing carotenoids, is associated with a well-being feeling and optimism.

Keywords

Sarcopenia, inflammatory cytokines, physical exercises

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Palliative Care e Comprehensive therapies in COVID 19 – era: in between chance and need for clinical practice

Carlo Barbetta 1*, Antonella Serafini 2, Mario Bisconti 3, Rosastella Principe 4, Alberto Fantin 5, Maria Serra 6

1 Pulmonary Unit, ULSS4 Veneto Orientale, S. Donà di Piave (VE), Italy

2 S.C.Pneumologia, Ospedale Civile, ASL 1 Imperiese, Imperia, Italy

3 Pulmonary Unit, Ospedale V. Fazzi – Lecce, Italy

4 Pulmonary Consultant, UPMC Clinic Salvator Mundi, Roma, Italy

5 Department of Pulmonology, University Hospital of Udine (ASUFC), Udine, Italy.

6 Pulmonary Unit, Villa Scassi Hospital, Genova, Italy

*Corresponding Author: carlobarbetta.md@gmail.com

Abstract

Palliative care (PC) and comprehensive therapies are WHO recognised strategies to reduce breathlessness and improve pain (in all its facets) as well as clinical outcomes for patients coping with a chronic disease. In western countries chronic conditions linked to cardiovascular disease and respiratory pathologies including but not limited to COPD, interstitial lung diseases and lung cancer are currently most leading cause of morbidity and mortality. Patients experience in different times a wide range of symptoms such as breathlessness and cough. Providing a palliative care path during covid19- era has been difficult given limitations for face-to-face consultations and need to point all clinicians and health-care practitioners (HCP) efforts for acute care. The need to provide also remote palliative care provided different chances: clinicians and HCP developed skills in symptoms management in order to provide personalized care also for patients not eligible for ICU care. Breathlessness and chronic cough neurological basis have been well explored and role of treatments targeting neurological pathways i.e. morphine, continuous positive airway pressure (CPAP) and other treatments is not only indicated but also encouraged by a wide range of consensus and position papers. PC evolved during the pandemic from a two-dimensional model, where treatments were increased or reduced according to clinical condition on time, to a three-dimensional model where space, in terms of setting for care, might play an important role in how treatments are delivered. Different experiences on telemedicine and palliative care have been published in the last two years. Scientific societies must provide development guidelines and efficacy scales for development of accessible instruments

Keywords

breathlessness, chronic cough, setting, covid-19, palliative care

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Covid-19 pandemia: which lessons can be learned from Bergamo's experience?

Ferdinando Luca Lorini 1, Claudia Paleologo 2

1 University of Milano Bicocca, School of Medicine Chair, Department of Anesthesia, Critical Care and Emergency Medicine. Hospital Papa Giovanni XXIII Bergamo, llorini@asst-pg23.it

2 Hospital Papa Giovanni XXIII Bergamo, cpaleologo@asst-pg23.it

Abstract

Lombardy, and particularly the province of Bergamo, has been the area of Italy most affected by Covid-19. As of April 26, 2020, the province had 11,113 confirmed cases and 2932 deaths from Covid-19. The first documented case in Bergamo was on February 21, 2020. Two weeks after, at PGXXIII Hospital in Bergamo, we admitted 85 patients to the ICUs (usual number of ICU bed is 42), 12 to subintensive critical care area and 150 to the wards with CPAP devices (1). We quickly arranged our lab for an early diagnosis of SARS-CoV-2 infection by nasopharyngeal swab or r-RT PCR, to isolate the positive patients and limit the spread of the disease. We noted the value of chest X-Ray to predict Covid-19 outcomes. We observed from the beginning an hyperinflammatory and hypercoagulative profile (measured by lab tests, i.e., elevated d-dimer, fibrinogen, IL-6, and viscoelastic tests) especially in the most severe cases. We started to administer steroids to some of our patients, observing a reduction of inflammatory markers and improvement of lung function. During the first months of pandemia we performed more than 140 CT scan and observed signs of pulmonary embolism in 60% of cases. The post-mortem findings obtain from our patients showed the presence of platelet-fibrin thrombi in small arterial vessels in consistent with coagulopathy (2). These data were confirmed later in larger trials. Therefore, steroids and anticoagulation quickly became a standard in our therapies, instead hydroxychloroquine and other antiviral agents did not show to be effective.

In patients admitted to our ICUs, we also observed that severe Covid 19 pneumonia determined an acute respiratory failure that fulfilled criteria for ARDS, but with some "atypical" features: an initial significant hypoxemia poorly responsive to PEEP, in the face of relatively preserved compliance. This scenario resulted from an high intrapulmonary shunt fraction attributed to an abnormally blunted hypoxic pulmonary vasoconstriction due to endothelial damage (3). In conclusion, Covid - 19 pandemia taught us the importance of early and quick diagnosis, of isolation of patients, of adequate and timely treatment.

Keywords

Covid 19 pneumonia, PGXXIII Hospital, incidence, diagnosis, pathophysiology, therapy

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COPD, Note 99 and therapeutic indications

Antonella Serafini 1, Carlo Barbetta 2, Paola Martucci 3, Alessandro Zanforlin 4,
Vincenzo Zagà 5, Alberto Fantin 6 Nome Cognome 3 *

1 Department of Pulmonology, Civil Hospital – Imperia, ASL 1 Imperiese
2 Department of Pulmonology, ULSS4 Veneto Orientale, S. Donà di Piave (VE)
3 Department of Interventional Pulmonology AORN A.Cardarelli – Napoli
4 Service of Pulmonology -Azienda Sanitaria -'Alto Adige
5 Pneumologist MD , past President SITAB
6 Department of Pulmonology, University Hospital of Udine (ASUFC), Udine, Italy.
*Corresponding Author: antonella.serafini23@gmail.com

Abstract

It is estimated that the prevalence of Chronic Obstructive Pulmonary Disease (COPD) will increase over the next 40 years exceeding 5.4 million deaths by 2060, also because of related diseases (1). The Health Search network that collects info from 800 General Practitioners (GPs) estimates that the current prevalence of COPD in Italy is 3.01% (2); this value is most probably underestimated as the ISTAT 2019 value was 5% and the main international organizations indicate a value in the range 5-10% worldwide (2). A reason for such low value can be a diagnosis often available only in the advanced stages of disease. Mild and moderate stages of COPD are often overlooked, while they are the stages where a therapeutic education and an appropriate therapy would be effective. In the biennium 2020-2021 SARS-CoV-2 pandemic led to an increase in smokers compared to the decrease ongoing in previous years. This trend associated with the lack in cares due to the conversion of services into Covid Areas will surely affect future epidemiologic data. However National Chronicity Plan had focused on COPD and chronic respiratory failure and also the National Recovery and Resilience Plan (PNRR) has also a focus on prevention and territorial care following the "One Health" model (Mission 6: health). The Decree-Budget Law 2020 rules the allocation of first-level diagnostic tools, including spirometers, to GPs, for an early diagnosis of COPD. With the 'Note 99' the GP is one of the main actors of the diagnostic and therapeutic paths . Made diagnosis of COPD [(FEV₁/FVC after bronchodilation \leq 0.70 (70%)] if the FEV₁ \geq 50% the GP prescribes appropriate inhalation therapy, but if FEV₁ \leq 50% the GP requires a second level functional investigations and periodic re-evaluation. 'Note 99' abolishes the Therapeutic Plan for LABA+LAMA association, except for the LABA/LAMA/ICS association that will be prescribed by the specialist with a therapeutic plan (3). The purpose of 'Note 99', issued in pandemic period when spirometry was difficult to perform, points towards an early diagnosis and an appropriate take in charge by the GP, for the care continuity.

Keywords

Prevalence, early diagnosis, general practitioner

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Monitoring home palliative care professionals' levels of burnout and psychological morbidity: a lesson learned from the age of covid-19 pandemic

Silvia Varani 1*, Rita Ostan 1, Luca Franchini 1, Giacomo Ercolani 1, Raffaella Pannuti 1, Guido Biasco 2, Eduardo Bruera 3

1 Fondazione ANT Italia Onlus

2 Università degli Studi di Bologna

3 University of Texas MD Anderson Cancer Center

*Corresponding Author: silvia.varani@ant.it

Abstract

Background

The COVID-19 pandemic strongly challenged healthcare workers, disrupting their work routine and impacting on their professional life. The pandemic has made clear that monitoring their psychological health is becoming even more necessary.

Aims

The study aimed to track the levels of burnout and psychological morbidity among home palliative care professionals (HPCPs) before, during and after one year of the COVID-19 pandemic.

Methods (design data collection analysis)

A total of 145 HPCPs, physicians and nurses, took part in this study. The results conducted during the first wave of COVID-19 (T1) were compared with both pre-pandemic data collected in 2016 (T0) and one year after (T2) in the same setting. Maslach Burnout Inventory and General Health Questionnaire-12 scores were used to monitor and compare burnout symptoms and psychological morbidity. A qualitative analysis conducted with a semi-structured telephone interview allowed to go deep into the experiences and issues reported by HPCPs.

Results

During the COVID-19 emergency, HPCPs presented a lower burnout frequency ($P < .001$) with a higher level of personal accomplishment than in 2016 ($P = .047$). Conversely, the risk for psychological morbidity was significantly higher during the pandemic ($P < .001$). The frequency of burnout remains nearly constant between T1 and T2, except for a marginally higher level of emotional exhaustion ($P = .049$) reported in T2; the percentage of cases showing psychological morbidity significantly decreased.

Conclusion/Discussion

Results indicate that sense of professional satisfaction and personal accomplishment appear to be key factors preventing HPCPs from high levels of burnout and psychological morbidity. This lesson learned from the age of COVID-19 should drive future actions aimed at the preserve the psychological health of HPCPs.

Keywords

Cancer, COVID-19, Palliative Care, Burnout, Psychological Distress

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ICUs look in the mirror: from the Covid emergency to structured follow-up, a necessary evolution

Elisa Righini 1, Lorenzo Giuntoli 2*, Vincenzo Reale 3, Laura Simoncini 4

1 Psychologist Psychotherapist, Hospital Psychology, Maggiore Hospital, Bologna

2 Intensivist, Intensive Care Unit, Maggiore Hospital, Bologna

3 Pulmonologist, Pulmonology, Maggiore Hospital, Bologna.

4 Psychiatrist, Spine Unit, Montecatone Rehabilitation Institute.

*Corresponding Author: lgiuntoli@ausl.bologna.it

Abstract

From August 2021 to August 2022, we evaluated 40 patients admitted to the ICU for SARS-Cov 2 infections, 62.5% male, mean age 65.1 years. The visit took place on average 8.6 months after the exit, through multidisciplinary evaluation by intensivist, psychologist, psychiatrist and pulmonologist. A perceived quality of life questionnaire, EQOL-5D, was administered. This was followed by the pneumological evaluation, to identify the persistence of dyspnea or need for diagnostic investigations, the psychiatric evaluation, to detect perceptivo-motor, cognitive-behavioral deficits, and the psychological evaluation, to investigate depressive disorders, anxiety, alterations in the sleep-wake rhythm, post traumatic stress symptoms. The intensivist provided a review on the hospitalization, evaluating any complications that had occurred. A single report was drawn up, available online for the General Practitioner, and further health services were planned. For 70% of patients a pneumological day hospital was opened, for 22.5% physiotherapy cycles were prescribed, a psychological path was started for 20% and other tests were requested for 20%. The mean of the perceived quality of life scale (VAS) was 67/100, the pre-admission VAS 85/100. The most involved areas of life were the ability to move, the persistence of pain and memories of derealization experiences. Media attention led to the receipt of 50 requests from citizens, mostly never hospitalized, with different symptoms; most of them were referred to dedicated ambulatory services.

The analysis of the activity has shown its usefulness for several reasons:

- the response to complex health needs, which force patients to wander among specialists, with discomfort, reduced effectiveness, inappropriate resource consumption;
- a complete outcome evaluation, widening the observation from survival and disability data only, to the concept of perceived quality of life, as suggested by the literature.

The latter recommends taking care of patients suffering from, or at risk of developing Post-intensive care syndrome, within 6 months from discharge. It is important to create a core of Professionals, capable of networking, to define and apply recruitment and evaluation criteria of patients to be followed up, not only the ones hospitalized for Covid.

Keywords

follow up, Post-Intensive Care Syndrome, Perceived Quality of life, Multidisciplinarity

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Home palliative care during the covid-19 pandemic

Raffaella Pannuti *, Silvia Varani

ANT Italy Onlus Foundation

*Corresponding Author: raffaella.pannuti@ant.it

Abstract

The challenges presented by the Covid-19 emergency were soon evident in the field of palliative care (PC). Among the most frail people, such as cancer patients in advanced stages of the disease, are also most likely to develop serious outcomes due to the infection. Hence, they represent a heavy burden on healthcare facilities, both in terms of human resource use and sustainability of care.

Along with other non profit associations, ANT Foundation has helped to withstand the impact of the health crisis with its work started 45 years ago. The ANT mission is pursued through its work with families and cancer patients assisted with completely free medical, nursing and psychological home care. Even in 2020, despite that home PC workers had to deal with highly stressful situations such as the risk of infection, lack of guidelines and protocols, work overload and difficulties in communication, ANT care did not suffer any reduction both with the approximately 10,000 patients followed each year and the 6,000 new admissions.

The home setting, the preferred choice for patients and families, has been successful in limiting outpatient visits and hospital admissions, thus helping both patient safety and relieving pressure on healthcare facilities. In this context, the enhanced use of telemedicine in clinical practice and care network organization empowered and facilitated the daily work of the home PC professionals.

While encouraging home care has been vital at this historic moment in the fight against the pandemic, international scientific evidences point to its long-term potential role in the healthcare system. This topic appears to be a priority during a time when human, health and economic resources are constrained and pressured by high demand.

Addressing the health challenges, that the present and the future impose, require a common will by all political, institutional and social stakeholders involved. In order to enhance the current resources, the recognition of the third sector key role should be a priority without forgetting the involvement of citizens, first and foremost the patients and their caregivers.

Keywords

Cancer, COVID-19, Palliative Care, Home care

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The Mind in pandemic: toward a multidisciplinary approach to listening

Maura Ianni

Università Tor Vergata Roma email

Corresponding Author: maurettaianni@libero.it

Abstract

The pandemic for all of us health operators has represented a new road, a road that today, in part, we learned to travel. A road that confused us, made us feel lost, without more certainties and that created us and creates anxieties and anxieties. We learned that the pandemic road must be traveled in company because it is only through the union, the support, the comparison and the mutual help that the steps to be taken are less tiring and uncertain. There are not many equipment to bring: attention and vigilance, reflection and caution and a good dose of trust and optimism. Attention and vigilance allow the wayfarers to know how to discern the real dangers from the ghosts that creates the mind suggested by the noises that animate the darkness and the echoes that come from afar. Reflection and caution guarantee a secure and thoughtful, competent and non -approximate choice with respect to the pace, the intensity of the step and respect for the rest time and refreshment of each wayfarer. Trust, step by step, becomes the link of the wayfarers who in unison feed a virtuous sense of reciprocity and exchange that infuse optimism. Optimism that generates from the awareness of one's limits but also by the certainties that the union of resources makes strength. The "whole" becomes the light that illuminates the road, the push that gives energy to the pass and the word that reassures. The whole is vital force when it feeds and supports the uniqueness of each element that is part of it. The whole is the road that leads beyond the pandemic .. which leads to a multiplication network approach of exchange, sharing and reciprocity. A multipraged approach that cannot fail to take into account the psycho-emotional aspect in the process of approach to pandemic. An approach that does not only concern those who have to face the disease but also those who take care of the disease. The mind is an individual heritage to be known and protected, a complex container that has many potential but which is too often put in the background, not considered. If we approached more aware of the experiences we would have been able to direct our mind towards a virtuous circuit. A virtuous circuit that begins with a process of psychological literacy that starts through an awareness that starts from the knowledge of the functioning of the mind. It is necessary to put in place a new approach to the treatment process that has communication, exchange and sharing as a fundamental element and which puts the uniqueness of the person and the attending care relationship in the center. Today, more than ever, the psychological approach is fundamental in the treatment process both as regards the psychological support of the careful and as regards the psychological support for the curate. Listening is the winning weapon that helps us to fight despair and the sense of emptiness. Having the certainty that there is always someone who can trust fears, needs, anxieties, fragility and needs without being judged but with the certainty of understanding and help is the turning point of the project of psycho-social help in pandemic time. Psycho-social project that cannot be separated from the profound and accurate knowledge of needs and the design of targeted and ad hoc actions. Starting from listening to needs is essential to be able to coordinate a psycho-social intervention in which the mind dominates is fear, confusion, disorientation. Disorientation that creates in mind a sense of despair that can lead to anguished depressive experiences or in aggressive conduct facing themselves or towards others. Pandemic disorientation that can acute psychological and psychiatric disorders, social, moral, ethical and economic problems. Pandemic disorientation that creates a wonderful cordon of solidarity, generosity and presence for the other but which can also generate shaking, inhumanity and profound selfishness. One, none and one hundred thousand facets of the human mind in a period in which we are subjected to a quantity of cognitive and emotional stimuli outside the control of custom, of habit. Everything is distorted, everything seems to be framed within a space temporal container that appears more and more surreal, dreamlike. It seems to have to wake up, at any moment, from a bad dream that has seen us protagonists of an extraordinary and shocking event. Upheaval that the company has placed in the face of the need to put at the top of the pyramid of vital needs the ability to be united, solidarity and capable of listening to the silent cry of those who need because they are afraid, because he is hungry, because he has pain, because He is cold, because he is alone. Only those who are capable of listening are able to help. Only a listening community is a community that knows how to help. Listening means individuals, families, groups, offices, associations, churches, factories. Listening means observing, questioning, deepening, questioning in order to act, to support, to buy, to give, to provide for everyone no one excluded. No one is excluded in a country where everyone is listening. If you are not, open your ears, open your heart wide, reach out your hand, activate your mind listen and do your part. Someday you too will need someone ready to listen to you.

Keywords

Pandemia- Multidisciplinary-listening approach

Psychological impact after Covid-19 infection

Alessio Cammisa

Coop. Soc. Cristo Pantocratore, via Indro Montanelli, 6/8, Palermo (Italy).

Corresponding Author: psicologocammisa@gmail.com

Abstract

Recent studies on the psychological aspects following the Sars-Cov-2 infection show us that, 3 or 6 months after the infection, the subjects have repercussions on their psychological well-being which can manifest themselves with Anxiety disorders, PTSD from post-traumatic stress, depression or reduction of some cognitive abilities. It is still too early to have a clear and exhaustive picture, but some studies already provide us with valuable indications. In particular, the most recent surveys show that:

1. Pre-infection psychological distress, including symptoms of depression, symptoms of anxiety, worry about COVID-19, loneliness, and perceived stress, is predictive of the risk of post-COVID-19 conditions among people infected with SARS-CoV-2 (1).

2. Patients hospitalized during the infection, therefore with more severe symptoms and non-hospitalized patients present, 3 months and 6 months after the infection, symptoms of PTSD, Major Depression and Anxiety comparable if not even worse than in non-hospitalized patients. Probably because hospitalized patients, albeit with more serious Sars-Cov-2 symptoms, received more frequent health and psychological care both during the hospitalization phase and in the subsequent phase (2).

3. Nearly half of patients discharged home after COVID-19 illness reported cognitive deficits 3 months later. Psychological factors (i.e., current depression, COVID-induced PTSD, prior mental illness) were strongly associated with cognitive symptoms even among patients not requiring critical care. Such cognitive symptoms appear to be closely related to psychological distress, although it cannot be excluded that the cognitive symptoms may have been a primary consequence of COVID-19, through direct neuropathogenic effects or indirect systemic changes (eg, hypoxia, inflammation, coagulopathy, cytokine storm) (3).

From these studies we can draw the following indications: carrying out early assessment and psychological treatment actions in favor of subjects affected by Covid-19 could allow us to reduce the psychological impact in the long Covid-19, especially in cases where, even before the infection there is a clinical picture characterized by Anxiety, Depression or PTSD, even if the patient does not require hospital care.

Keywords

Psychological impact, Long covid, Ptsd, Depression, Anxiety, psychology.

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Pulmonary Rehabilitation in patients with long COVID

Michele Vitacca

Direttore Dipartimento Pneumologico ICS Maugeri IRCCS Pavia
Corresponding Author: michele.vitacca@icsmaugeri.it

Abstract

Long Covid can be broadly defined as signs, symptoms, and sequelae that continue or develop after acute COVID-19 or SARS-CoV-2 infection for any period of time; symptoms are generally multisystemic and might present with a relapsing–remitting pattern and a progression or worsening over time, with the possibility of severe and life-threatening events even months or years after infection. A multisystemic inflammatory syndrome may be advocated to explain this complex and multisystemic involvement. Researchers have found that about half and a third of the patients reported fatigue, dyspnea and/or cognitive impairment at 3 and 12 months, respectively after COVID infection. Reduced effort tolerance and quadriceps strength is present in 20% and 60% at 3 months versus 7% and 30% at 12 months. At 3 months, diffusing capacity for carbon monoxide (DLCO) is found below the lower limit of normal in 35% of cases decreasing to 21% at 12 months. Chest CT improved over time; 10% presented non-progressive fibrotic changes at 1 year. Other symptoms/condition are low physical function, impaired performance irrespective from previous comorbidities, fatigue, desaturation during effort, post-intensive care syndrome (PICS), frailty, care dependency, poor quality of life, physical activity reduction. To identify additional care or rehabilitation needs a timely multidisciplinary follow-up is strongly recommended following COVID-19 admission. Physical therapy seems to have positive effects on pulmonary function, physical function and psychosocial function, while uncomplete evidence has been proposed of efficacy of effort training due to the huge heterogeneity of population. Timing, assessment, frequency, intensity, time, type, location and phenotype are important and unclear topics for clear dedicated programs in post COVID patients. The use of rehabilitation programs previously applied in chronic respiratory disease could be useful in the absence of dedicated studies, but we must be aware that different results may be possible in post-COVID patients. Individual components of the rehabilitation program (FITT) should be tested in this population. This research field is pioneering and a great effort from researchers is needed to make suggestions for the health system about effective programs and efficient and sustainable organizational model.

Keywords

Disability and long COVID, fatigue, dyspnea

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Appropriate nutrition in long-COVID-19

Domenico Nuzzo*, Carola Santalucia, Antonella Girgenti, Pasquale Picone

Istituto per la Ricerca e l'Innovazione Biomedica, Consiglio Nazionale delle Ricerche, Palermo, Italy

*Corresponding Author: domenico.nuzzo@cnr.it

Abstract

Metabolic dysfunction and, particularly, type 2 diabetes mellitus (T2DM) are often associated with high mortality, great severity, and worse progression of COVID-19. This association depends on different reasons: the overexpression of ACE2 receptor in individuals with diabetes, comorbidities such as hypertension and cardiovascular disease, obesity, and pro-inflammatory state. Age, sex, and ethnicity play also a role in the disease outcome. Although it is well recognized that nutrition has a significant role in individual health, only few data have described the role of adequate alimentary regimen during long-COVID disease. Besides the well-known polyphenols derived from fruit and vegetables, biologically active and useful substances have been identified in eggs: several egg white proteins, including ovalbumin, ovotransferrin, ovomucin, lysozyme, and avidin, as well as the peptides derived from the proteins, have been recognized for their functional importance as antimicrobial, antioxidant, and anti-inflammatory agents and for their ACE-inhibitory activity (1). The role of vitamins and minerals for a correct immune system response has been fully investigated. Many nutrients, such as vitamin A, B, C, and D, and minerals like zinc, and selenium play a key role in maintaining a healthy immune system. Vitamin A is fundamental for the performances of T and B cells and for antibody production and its deficiency has been associated in vivo with reduced number and functionality of natural killer cells, activity of phagocytic cells and macrophages (2). Flavonoids are a group of natural substances that have different subgroups including chalcones, flavonols, flavones, and isoflavones. These molecules have many activities besides antioxidant effects and antiviral capacity. Recent research has suggested that the anti-coronavirus activity of some flavonoids (herbacetin, rhoifolin, and pectolarine) is due to the inhibition of the 3C-like protease (3). Furthermore, herbacetin, quercetin, and helichrysetin were found to be able to block the MERS-CoV/3CL pro enzymatic activity (3). In conclusion, the use of a plant-based diet and of freshly cooked and lightly processed foods, avoiding bioactive compound degradation, could help in reducing the symptoms related to long-COVID. Furthermore, data collected before the pandemic era indicated that a vegetable alimentary regimen usually reduced symptoms found in long-COVID patients such as sleep disorder, anxiety headaches, and depression.

Keywords

Nutrition, polyphenols, vitamins

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