ISSN: 2634 - 680X

Journal of Clinical Case Studies Reviews & Reports

SCIENTIFIC Research and Community

Case Report

Open Access

Post-COVID 19 Syndrome: Case Report

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ABSTRACT

Post-covid syndrome has been defined as the persistence of at least one clinically relevant symptom, or spirometry or radiological alterations after infection by covid-19. Its existence is undoubted although it is not clearly distinguishable since it is confused with clinical pictures produced by other acute viral diseases whose most persistent symptoms are usually dyspnea, cough, and chest pain.

Clinical Case: 64-year-old male patient in poor general condition, post-covid 19 syndromes, under prolonged invasive mechanical ventilation of difficult weaning for 56 days. With requirement of multiple antibiotics from his hospital stay due to refractory septic shock of pulmonary and urinary origin.

Conclusion: Following trauma or a severe primary infectious disease, such as Covid-19 in which a systemic inflammatory response syndrome or SIRS predominates, a long-lasting, overwhelming, compensatory anti-inflammatory RIA syndrome occurs, leading to post-infectious / post-traumatic immunosuppression.

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Received: September 24, 2021; **Accepted:** October 04, 2021; **Published:** October 08, 2021

Keywords: Covid-19, Post-Covid Syndrome.

Introduction

Post-covid syndrome has been defined as the persistence of at least one clinically relevant symptom, or spirometry or radiological alterations after infection by covid-19 [1]. The scientific committee on covid of the Madrid College of Physicians has discussed the recognition of this problem with multidisciplinary evaluations with internists, infectologists, psychiatrists, pulmonologists, surgeons, geriatricians, pediatricians, microbiologists, family doctors and other specialists who still question the existence and establishment of a latent virus reactivation syndrome [2].

Recently, the recognition of the post-covid syndrome as a pathological entity that involves persistent physical disorders, medical and cognitive sequelae has gained strength after the primary infection by covid-19, including persistent immunosuppression, as well as pulmonary, cardiac and vascular fibrosis.

Every day the evidence gathers a growing percentage of people who had covid and refer after their recovery from the acute phase a series of subjective and objective clinical manifestations that last more than 3 weeks and even 3 months after the original clinical picture. Variable clinical manifestations ranging from symptoms of simple fatigue and persistence of fibrotic lung lesions with objective alterations in lung function, to the worst outcome: death due to multi-organ failure syndrome [3,4].

Presentation of the clinical case

64-year-old male patient in poor general condition, who previously debuted with Sars-Cov-2 infection, with apparent improvement, who was readmitted on 05/28/21 and is in the ICU, under a diagnosis of post-covid 19 syndrome, under ventilation prolonged invasive mechanics difficult to wean for 56 days. With requirement of multiple antibiotics from his hospital stay for refractory septic shock of pulmonary and urinary origin, in addition to Bacteremia by K. Aerogenes producer of Amp C. Use

of corticosteroid therapy for 10 days. Patient who started Cefepime since 06/06/2021 due to marked leukocytosis associated with signs of a systemic inflammatory response and was pancultured. Patient who, since 06/07/2021, presents spontaneous right pneumothorax requiring closed drainage thoracostomy with seropurulent fluid per system and thoracostomy without thermal rises or requirement for vasopressor support at the time. Patient in poor general condition with poor response to medical therapy. He continues with mechanical ventilation by tracheostomy.

It was decided on 06/14/2021 to adjust antibiotic therapy to Meropenem due to the presence of signs of persistent systemic inflammatory response and hemodynamic instability that responds to fluids, 06/26/2021 patient who is on treatment with meropenem on day 5 hemodynamically stable without data of SIRS.

Discussion

Post-covid syndrome appears to be more severe and frequent in adults who have been admitted to the intensive care unit for a long time and is characterized by peculiar behavior in a small group of children. Its existence is undoubted although it is not clearly distinguishable since it is confused with clinical pictures produced by other acute viral diseases whose most persistent symptoms are usually dyspnea, cough and chest pain [5,6].

Impaired lung function is a frequent occurrence in patients who have had moderate acute illness and who have been in the ICU as a result of the aggressive "cytokine storm" that develops during infection. The cytokine storm or exaggerated inflammatory response has been postulated as the central fact in multiorgan damage and there is already a certain doctrine of its relationship with post-viral symptoms, which include the levels of molecules of the inflammatory cascade, alterations of the factors modulation of the immune response and the polyorphisms that respond to both, is characterized by the presence of asthenia, fatigue, respiratory distress, chest tightness, muscle pain, difficulty concentrating, and sleep disturbances without an established pattern or other obvious pathophysiological explanation [7,8]

In the worst case, Sars-Cov-2 infection in adults results in the development of lung injury, acute respiratory distress syndrome, coagulopathy, hypotension, hypoperfusion, and organ failure or multi-organ dysfunction syndrome, and in the worst case, cases death. All this depending on the viral exposure or inoculum, the presence or absence of comorbidities and the state of immunocompetence [9].

In children, the post-covid syndrome has been described as a clinical picture consisting of asthenia, lymphadenopathy, myalgia, elevated inflammatory parameters (erythrocyte sedimentation rate, CRP, procalcytocin, fibrinogen, LDH, Il-6) and neutrophils with lymphopenia. Fever being the prevalent symptom that is accompanied by gastrointestinal disease and other symptoms (cardiovascular, dermatological, hematological, respiratory, neurological, kidney). In padiatric patients, the use of the diagnosis of Post-Covid Syndrome is difficult, when the child presents clinical and laboratory symptoms similar to hyperinflammatory pediatric diseases such as: Kawasaki disease, Toxic Shock Syndrome and macrophage activation syndrome [10].

Conclusion

Following trauma or a severe primary infectious disease, such as Covid-19 in which a systemic inflammatory response syndrome or SIRS predominates, a long-lasting, overwhelming, compensatory anti-inflammatory RIA syndrome occurs, leading to post-immunosuppression. infectious / post-traumatic. Around the world there are many doctors who still question the establishment of Post-Covid Syndrome, however the evidence presented here motivates us to continue investigating and reaffirming the existence of this viral syndrome.

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