The role of comprehensive care for patients with sickle cell disease during the COVID-19 pandemic

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Introduction: The new coronavirus (SARS-CoV-2), which causes the disease called COVID-19, determined a pandemic that has affected more than 219 countries, bringing greater impact to global health. COVID-19 triggers an exacerbate, hyperactivated and uncontrolled immune response, with severe clinical manifestations in people with underlying diseases. Sickle Cell Disease (SCD) is a genetic pathology which determines immunosuppression, leading to a greater risk of respiratory infections and pulmonary complications within the pandemic context. Aim: To verify the role of comprehensive care for people with SCD in the pandemic scenario, proposing a medical care guideline. Methods: Systematic literature review in which studies published between March 2020 and June 2022 and originally in English were reviewed using MedLine database. The terms, searched through MeSH, were “Sickle Cell Disease”, “COVID-19” and “Practice Guideline”. 94 articles were identified and after application of inclusion criteria, 7 articles were chosen to be part of the study’s scope. Results: COVID-19 causes a wide spectrum of clinical respiratory syndromes, from mild upper airway symptoms to life-threatening pneumonia. SCD patients present a higher risk of developing COVID-19 complications, since it may determine vaso-occlusive crisis (VOC) and Acute Chest Syndrome (ACS). General prophylaxis measures are proposed: social detachment, use of masks, maintenance of medication (analgesics, folic acid and Hydroxyurea) and vaccination as recommended by the National Immunization Program (including the vaccine against SARS-CoV-2, whose implementation minimizes the impacts of COVID-19 in SCD patients). The health team must have adequate knowledge concerning ACS’s early signs, recognizing them as soon as they appear. In the existence of respiratory symptoms or VOC, SCD patients infected by SARS-CoV-2 should undergo thoracic radiological evaluation (chest radiography, computerized tomography and nuclear magnetic resonance). Immunobiological therapy and simple transfusion followed by ex-blood transfusion in SCD patients requiring respiratory support in the Intensive Care Unit have a positive impact on the clinical course of COVID-19. For SCD patients with mild viral symptoms and painful crises, intravenous hydration and analgesia are effective. Conclusions: These strategies aim to include comprehensive care for SCD patients. They seek to improve guidance and minimize the impact of COVID-19 on the well-being of people with SCD.