



IMPLICATION OF COVID 19 IN PATIENTS OF SJOGREN'S SYNDROME

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Abstract:

Sjogren's syndrome is an immune-suppressive disorder. The patients of Sjogren's syndrome usually present with complications such as bronchitis, pneumonia, dental cavities, cirrhosis, hepatitis, oral thrush, blurred vision, peripheral neuropathy and B-cell lymphoma. The patients of Sjogren's syndrome being in immunocompromised state they are likely susceptible to any secondary infection and in advent of COVID 19; the anticipated higher risk of contracting COVID 19 may prove to be fatal in these patients and may increase morbidity and mortality in them. The Sjögren's Syndrome is a rare autoimmune disorder with critical clinical manifestations affecting several visceral organ including lungs. An interstitial lung disease is one of the common complications observed in these patients. Thus the respiratory complications of COVID 19 such as pneumonia and acute respiratory distress of COVID 19 disease may get attenuated in patients of Sjogren's syndrome contracting COVID 19 infection. Moreover the patients of Sjögren's Syndrome with comorbidities have higher risk of severe COVID 19 infections. Following safety precautions for COVID 19 prevention can prevent severe manifestations of COVID 19. It is recommended that the patients of Sjögren's Syndrome should follow all safety norms as recommended by health authorities and World Health Organization for COVID 19 infection prevention. Moreover more clinical trials regarding management of COVID 19 in Sjögren's Syndrome are needed to be conducted; so also clinical outcomes needs to be shared by clinicians on journal platform so that effective management protocol can be recommended in these immunocompromised patients of Sjögren's Syndrome who otherwise shall have severe COVID 19 manifestations with increased mortality.

Key Words: Sjogren's Syndrome, COVID 19, Mortality, Acute Respiratory Distress & Preventive Measures

Introduction:

Sjogren's syndrome is an immune-suppressive disorder which commonly occurs in conjunction with rheumatoid arthritis and systemic lupus erythematosus. This condition usually occurs in fourth decade of life and more commoner in females as compared to males. The patients of Sjogren's syndrome usually present with eye and mouth dryness and may also present with symptoms such as persistently present dry cough, stiff swollen joints, fatigue, dryness of skin, enlarged salivary glands, skin rashes and vaginal dryness. The patients of Sjogren's syndrome may present with complications such as bronchitis, pneumonia, dental cavities, cirrhosis, hepatitis, oral thrush, blurred vision, peripheral neuropathy and B-cell lymphoma.^[1,2] The patients of Sjogren's syndrome being in immunocompromised state are likely susceptible to any secondary infection and in advent of COVID 19; the anticipated higher risk of contracting COVID 19 may prove to be fatal in patients of Sjogren's syndrome and this may increase morbidity and mortality in these patients. We have also observed in our studies that patients of immunocompromised state are highly susceptible to recurrent infections and may have severe manifestations in COVID19.^[3] In the literature review conducted by John Laszlo; he had highlighted the questions which need to be answered; in risk associated in immunocompromised patients of Sjogren's syndrome in wake of present COVID 19 pandemic. These questions targeted that whether the altered viscid milieu can act as an unassailable barrier to Corona Virus 19 and whether the decreased nasolacrimal, oropharyngeal, and tracheal fluid flow towards the lungs; decrease the viral carriage capacity towards the susceptible target cells and thereby the binding of viral antigen to ACE 2 receptors not accomplished; and so whether if the imminent risk in patients of Sjogren's syndrome from Covid-19 is mitigated iatrogenically.^[4] Moreover there is paucity of study outcomes of morbidity and mortality rate of Sjogren's syndrome with COVID 19 infection. These facts gave us an impetus to review the literature on any recent outcomes noted in patients of patients of Sjogren's syndrome contracting COVID 19.

COVID 19:

Covid 19 is the corona virus disease 2019 and is so named due to its origin in December 2019 from Wuhan China. The causative agent for this disease is the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The symptoms associated with disease include fever, dry cough, sore throat, shortness of breath, myalgia, fatigue, loss of smell and taste sensation, nausea, vomiting and diarrhea. The complications

associated with disease are acute respiratory distress, pneumonia, arterial and venous thrombosis, septic shock, disseminated intra vascular coagulation etc. Moreover the morbidity and mortality as been more associated in patients with comorbidities such as hypertension, diabetes, cardiovascular diseases, carcinoma, chronic lung disease, chronic renal diseases etc. [3,5]

COVID 19 in Patients of Sjogren's Syndrome:

The patients of Sjogren's syndrome with comorbidities are at higher risk for developing severe and complicated manifestations of COVID 19 and these patients have poor outcomes when compared with patients of Sjogren's syndrome without comorbidities. The comorbidities such as hypertension, diabetes, metabolic syndrome, chronic kidney diseases, chronic lung diseases, hematological neoplasia in patients of Sjogren's syndrome are associated with poor clinical outcome and severe COVID 19 manifestations. [6] The interstitial lung disease in patients of Sjogren's syndrome may lead to earlier pulmonary complications of COVID 19 in view of already pathological state of lung. [7] Thus the respiratory complications of COVID 19 such as pneumonia and acute respiratory distress of COVID 19 disease may get attenuated in patients of Sjogren's syndrome contracting COVID 19 infection.

Preventive Measures to be Practiced for Prevention of COVID 19 Infections by Patients of Sjogren's Syndrome:

The monocentric study carried in Italy revealed that practicing preventive measures for COVID 19 has prevented occurrence of COVID 19 in patients of and thereby decreased mortality risk in these patients. [8] Considering higher risk of complication in patients of Sjogren's syndrome contracting COVID 19 infections; we suggest practice of preventive measures in these patients and are as detailed below:

- All patients of Sjogren's syndrome shall follow all preventive COVID 19 protocol meticulously. Maintain social distancing, wearing mask, maintaining hand hygiene, washing hand with soap for at least 20 seconds after touching any objects and maintain social isolation if any symptoms of COVID 19 happen to appear in these patients.
- If patients of Sjogren's syndrome need any medical advice it is better they avail consultation with doctors through telephone, mobile or telemedicine services.
- If the patients of Sjogren's syndrome require any medicine they can get it delivered online.
- All patients of Sjogren's syndrome should avoid visiting crowded places or gatherings.
- If positive for COVID 19 they should seek immediate medical attention.
- The patients of Sjogren's syndrome should get vaccinated for COVID19 as the little risk of vaccination outweighs likely benefits in these patients.
- As per guidelines issued of the U.S. Centers for Disease Control and Prevention (CDC); mRNA COVID 19 vaccine has been recommended for all patients of autoimmune disease as well as Sjögren syndrome. [10]

Conclusion:

The Sjögren's Syndrome is a rare autoimmune disorder with critical clinical manifestations affecting several visceral organ including lungs. An interstitial lung disease is one of the common complications observed in these patients. Thus the respiratory complications of COVID 19 such as pneumonia and acute respiratory distress of COVID 19 disease may get attenuated in patients of Sjogren's syndrome contracting COVID 19 infection. The patients of Sjögren's Syndrome with comorbidities have higher risk of severe COVID 19 infections. As safety precautions can prevent severe manifestations of COVID 19 it is recommended that the patients of Sjögren's Syndrome follow all safety norms as recommended by health authorities and World Health Organization against COVID 19 infection. But more clinical trials regarding management of COVID 19 in Sjögren's Syndrome are needed to be conducted; so also clinical outcomes needs to be shared by clinicians on journal platform so that effective management protocol can be recommended in these immunocompromised patients of Sjögren's Syndrome who otherwise shall have severe COVID 19 manifestations with increased mortality.

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