



PRIMARY TUBERCULOSIS AND COVID-19 - A CASE REPORT

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Background:

Croatia has a low incidence of tuberculosis, with 159 new cases (4,1/100000) reported in 2021. However, tuberculosis remains a significant global public health problem. It was the leading infectious cause of death worldwide, until the Covid-19 pandemic. Due to the pandemic's impact on healthcare systems, there was a reduction in reported tuberculosis cases since 2020, potentially leading to increased incidence and mortality in the future. This report details a case of primary tuberculosis with Sars-Cov-2 coinfection and a complex disease course.

Conclusion:

This case report presents a rare and complicated course of primary tuberculosis, highlighting the importance of early recognition and prompt treatment of the disease. It also emphasizes the potential issues associated with the Covid-19 pandemic, as Covid-19 and tuberculosis coinfection further



complicates patient management. Another emerging challenge in Croatia is the increasing immigrant population from countries with higher tuberculosis incidence and higher rates of multidrug-resistant tuberculosis. Ongoing efforts are necessary to prevent, diagnose, and treat tuberculosis worldwide.

Case:

A previously healthy 27-year-old male patient presented to the emergency department with a history of fever, fatigue, and body aches. He had recently moved to Croatia from India. Physical examination revealed palpable, enlarged cervical lymph nodes. The chest radiograph demonstrated condensed pulmonary parenchyma in the lower lobes, and laboratory testing showed elevated inflammatory markers and liver enzymes. The patient was hospitalized, and a CT scan was performed, which revealed multiple lymph node conglomerates, pleural effusions, and extensive reticulonodular interstitial pattern in the lungs. Fine needle aspiration cytology of the cervical lymph node showed granulomatous inflammation, and PCR for *Mycobacterium tuberculosis* from bronchial aspirate was positive. Four drug anti-TB therapy was immediately started, including rifampicin, isoniazid, ethambutol and pyrazinamide. Two months after the onset of the illness, an abrupt deterioration occurred involving high-grade fever, rhabdomyolysis, acute kidney injury, anemia, leukopenia, elevated ferritin, triglycerides and liver enzymes. Hemophagocytic lymphohistiocytosis (HLH) was suspected and confirmed with a bone marrow biopsy. HLH was thought to be a consequence of the underlying disease, and no specific treatment was indicated. Anti-TB therapy, steroids, and filgrastim led to the patient's clinical recovery and normalization of laboratory parameters. Recovery was then complicated by Covid-19 infection, but the patient had mild symptoms, without pneumonia or respiratory failure. Four months after the onset of anti-TB therapy, sputum cultures were negative for mycobacteria. The patient fully recovered and was discharged from the hospital without complaints.