

A COVID-19 Infection with a Clinical Misdiagnosis and a Perplexing Clinical Course

Abstract

Similarities within the symptom course and alternative manifestations of some diseases could cause clinical misdiagnosis of COVID-19 infection. Here, we have a tendency to report a case in an exceedingly young kid with a doubtless confusing clinical course. A 29-month-old boy given with a 2-month history of fever, His PCR takes a look at for COVID-19 was positive, and there was serosa effusion and positive findings within the lower left lobe of the respiratory organ on computerized tomography scan. Mid-sized hypertrophy was found on abdominal ultrasound, and laboratory tests disclosed cytopenia. In light-weight of the atypical white blood corpuscle counts in laboratory tests, he underwent bone marrow aspiration. The urged identification was hemophagocytic lymphohistiocytosis, and PediaPred was initiated. Afterwards, Leishman-Donovan bodies were seen within the bone marrow aspirate, and treatment was started with antibiotic drug, that light-emitting diode to clinical improvement. In cases with imprecise clinical symptoms in tropical countries wherever alternative infectious diseases occur, doable synchronal infection ought to be thought of even throughout a plague. Familiarity with the doable differential diagnoses and acceptable, gradual thought to rule out alternative doable cause's area unit required all told things, and therefore the existence of communicable disease ought to be thought of in evaluating the clinical conditions of patients in tropical countries.

Keywords: Diabetes mellitus • Covid-19 pandemic • Metabolic profile • Social distancing • Diagnosis

Introduction

The current COVID-19 pandemic that originated in China in December 2019 has apace unfolded throughout the planet, leading to a critical pandemic. Members of this virus family are well-known since the Sixties; however the present COVID-19 pandemic has heightened world issues concerning alternative symptom diseases that preponderantly have an effect on the system respiratory. Additionally, epithelial duct and internal organ involvement in COVID-19 will mimic the clinical manifestations of the opposite infectious diseases [1].

During the COVID-19 pandemic, existence with alternative diseases isn't uncommon, and misdiagnoses could also be inevitable. These problems area unit a lot of common in tropical countries suffering from communicable disease with signs and symptoms on presentation like COVID-19, and therefore the ensuing delays in identification and treatment will cause issues for a few patients, particularly within the paediatric population. In our region, leishmaniasis is one such tropical malady that may gift diagnostic challenges. The visceral sort is characterised by long-run fever, anemia, organomegaly, and pathology. Similarities within the symptom course and alternative manifestations could cause clinical misdiagnosis of COVID-19 malady. One amongst these differential diagnoses consistent with the clinical manifestation of our patient is hemophagocytic lymphohistiocytosis (HLH) malady. HLH may be a rare condition of pathologic immune activation, of that is secondary type could seem as a secondary method of malignancies, infections, metabolic disorders, and rheumatological or reaction disorders [2].

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Here, we have a tendency to report a case in an exceedingly young kid with a doubtless confusing clinical course that had hemophagocytic lymphohistiocytosis secondary to dum dum fever. Chronic disease (CLD) and liver disease area unit related to immune dysregulation, leading to associate enhanced condition to microorganism infections. It's been hypothesized that patients with CLD may be at enhanced risk of feat COVID-19, though this has not been tested in any study. However, enhanced condition to feat COVID-19 has been ascertained in inveterately immunological disorder liver transplant patients [3].

Prior studies have found that patients with CLD or liver disease older a lot of frequent adverse outcomes of COVID-19 than the background population which patients with CLD were in danger of developing acute liver injury, internal organ decompensating, or acute-on-chronic liver failure (ACLF). Mortality has been tested to extend for patients with liver disease and COVID-19. Current proof suggests that comorbidities like polygenic disorder, obesity, and chronic preventative pulmonic malady and smoking standing predict a better mortality among patients with CLD, decompensated liver disease and malignant hepatoma (HCC), once infected with COVID-19 [4].

Case Presentation

A 29-month-old boy given with a 2-month history of fever, once analysis at many totally different out-patient services, he was admitted to our hospital. His PCR take a look at for COVID-19 was positive, and there was serosa effusion and positive findings within the lower left lobe of the respiratory organ on a computerized tomography scan of his chest. The patient was discharged from the primary hospital and that they gave them directions to require the boy to our tertiary health care center. On admission, hydroxyl-chloroquine was administered to finish the treatment course for COVID-19. Fever and cytopenia were treated with Vaccine and cefepime [5].

The liver had traditional echoes on the second ultrasound and measured 84 mm, and therefore the bladder wall was thickened. Alternative ultrasound findings were traditional, aside from a parenchymal

cyst within the higher urinary organ pole. Consistent with associate AP read of chest radiography, there was ground-glass consolidation behind the viscous shadow, though heart size was traditional. Additionally, there was a hypertrophy. Diagnostic technique showed terribly delicate [6].

In addition, laboratory tests showed abnormal liver operate, cytopenia, hypertriglyceridemia, enhanced protein level, and diminished factor I. so as to rule out alternative differential diagnoses, alternative laboratory tests were performed. In light-weight of the atypical white blood corpuscle counts within the initial laboratory tests, he underwent bone marrow aspiration that was traditional. Also, the direct hymenopteran simple protein take a look at was positive with a concentration of 1:3200. Afterwards, Leishman Donovan bodies and hemophagocytic cells were seen in bone marrow aspiration, and treatment was started with antibiotic drug, that light-emitting diode to clinical improvement. Then, the urged identification was hemophagocytic lymphohistiocytosis secondary to dum dum fever, and Pediapred was initiated [7].

Discussion

In non-COVID-19 pandemic conditions, the first identification in patients like the young boy delineate here would doubtless be leishmaniasis, a tropical malady prevailing in Asian country. However, as a result of most patients with dum dum fever area unit well, the presence of bound clinical manifestations could also be confusing to some extent. Synchronal infection by alternative pathogens has been reported (for example) for HIV. a very important purpose to think about at this time is that the role of transmission of the infective agent by patients World Health Organization stay coinfection of flagellate protozoan *braziliensis* and eubacteria respiratory disease in patients with multiple skin lesions. A prompt definite identification will lead sooner to acceptable treatment and higher outcomes [8].

Our patient could also be the primary to be reported with coinfection by SARS-CoV-2 and flagellate protozoan sp. recently, coinfection of the COVID-19 virus and microorganism and fungous malady agents. These authors noted

the importance of sleuthing coinfection for each therapeutic and medical specialty reasons. Sadly, patients with coinfection sometimes have a worse malady course and a poor prognosis. Coinfection with alternative pathogens will alter the condition to alternative necessary pathogens via effects on the host's immune responsiveness. For instance, helminths coinfection could modulate COVID-19 severity in tropical regions. Thought of the multiple interactions in coinfections can enable clinicians to higher predict the response to medical interventions and environmental changes.

Post-kala-azar dermal leishmaniasis may be a complication in patients with dum dum fever which might additional complicate the clinical image and end in misdiagnosis. However, in patients with only visceral involvement, associate correct identification is a lot of possible. The issues connected with high one malady subtype that will manifest with ambiguous signs or symptoms in patients presenting with complaints that time to many diagnostic prospects. Health risks arise once a number of these patients with confusing or mild-appearing clinical displays area unit misdiagnosed [9].

The clinical displays of all kinds of dum dum fever amendment from time to time, and this will be a supply of confusion, particularly in patients with common or synchronal microbe diseases reported a 20-year-old labourer with a history of continual symptom episodes, progressive weakness, and abdominal discomfort related to eating disorder for six months followed by petechial haemorrhages over numerous components of the body. Such manifestations could facilitate to higher distinguish between totally different entities within the medical diagnosis.

In no tropical regions, alternative obstacles to a prompt, correct identification will arise as a result of dum dum fever is tough to acknowledge and comparatively new in these countries, creating misdiagnosis a lot of common and so delaying treatment or resulting in inappropriate treatment. It should be misdiagnosed as only involvement of organs like the liver. Caution is especially required in these settings due to fatal cases of dum dum fever that can't be prevented [10].

Conclusion

In conclusion, patients with imprecise clinical symptoms in tropical countries wherever

alternative infectious diseases area unit prevailing ought to be fastidiously evaluated to spot doable synchronic infections, even within the context of associate ongoing epidemic or a plague. Familiarity with the doable differential diagnoses and acceptable, gradual thought to rule out alternative doable cause's area unit required all told things, and therefore the existence of over one communicable disease ought to be thought of in evaluating the clinical conditions of patients in tropical countries.

Conflicts of Interest

None

Acknowledgement

None

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