

Brucellosis with splenic abscess in a child initially suspected to have covid-19

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Abstract

COVID-19 can manifest with signs and symptoms related to many different systems. Therefore, in the examination of almost every patient, COVID-19 infection is excluded first. This may cause other diseases to be missed, as almost occurred in the case of a 15-year-old boy with brucellosis and a splenic abscess. Public and health care personnel fear of COVID-19 may cause more harm than the virus itself.

Keywords

Brucellosis, splenic abscess, COVID-19, MIS-C, pediatrics

Case report

A 15-year-old boy presented with fever up to 39°C for 10 days, with cough, weakness, and knee and low back pain. He had been admitted elsewhere with similar complaints two months previously, and had tested negative with PCR for SARS-CoV-2, the complaints having regressed after ten days of undefined antiviral and antibiotic treatment.



Figure 1. Ultrasonic figure of abscess in the spleen.

At presentation, he was of normal weight (67 kg) and height (170 cm), febrile at 38.5°C, tachycardic (pulse 100/min), normotensive (100/60 mm Hg), tachypnoeic (respiratory rate 25/min). There was no hepatomegaly, and the spleen was impalpable, but the Traube space was closed.

Laboratory test results showed were: WBC: 4.8 $10^9/L$, Absolute neutrophil count (NC): 1.6 $10^9/L$, absolute lymphocyte count: 2.9 $10^9/L$, hemoglobin 142 g/L, platelet 263 $10^9/L$, CRP: 609 nmol/L, procalcitonin: negative (0.27 $\mu\text{g/L}$), ferritin: 2.08 nmol/L, sedimentation: 10 mm/h, PT: 14 s, aPTT: 31.9 s, and D-Dimer: 1.87 mg/L. The SARS-CoV-2-PCR test, Epstein Barr virus screen, salmonella serology were all negative.

On abdominal ultrasonography, hypoechoic lesions were observed in the spleen, suggesting multiple abscesses with a diameter of <1 cm (Figure 1). Echocardiographic findings were normal as were lumbosacral magnetic resonance imaging. The brucella tube agglutination result was positive (1/1280). *Brucella melitensis* was grown in blood culture.

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It was learned that the patient had consumed cheese made from raw milk. Triple antibiotic treatment (rifampicin 600 mg, doxycycline 200 mg bd for six weeks, and gentamicin 5 mL/kg od for two weeks) was administered, which produced complete resolution of his illness.

Written consent was obtained from the patient's family for publication.

Discussion

Abscess formation in the spleen is a rare and serious complication in child brucellosis.¹ Most cases described in the literature are in adults, secondary to chronic hepato-splenic brucellosis. The mortality rate of splenic abscess is reported to be 100% without treatment.²

As a consequence of the COVID-19 pandemic, other cases are missed or diagnosis may be delayed. Fever pattern in brucellosis (as well as other diseases) may fluctuate, and give a false sense of security or recovery. A negative COVID-19 test should stimulate the search for an alternative diagnosis; furthermore it must not be forgotten that COVID-19 may co-exist with other serious illnesses.

In previous studies, it has been observed that the risk of ketoacidosis increased due to delayed diagnosis of type 1 DM.³ It has been reported that patients develop complications or worsen, especially in chronic diseases with malignancies, due to the disruption of continuity of follow-up examinations and chemotherapy.⁴ In other studies, cases of late diagnosis of AML, cerebellar mass, celiac crisis, severe bacterial pneumonia and effusion, and perforated appendicitis have been reported due to delays in applying to the healthcare system because of fear of COVID-19.^{5,6} Patients mostly hesitated to go to the healthcare system due to fear of infection during the pandemic, and therefore there were delays in diagnosis. However, in the current case, the delay in diagnosis was not due to the patient but to the doctor. During the pandemic diseases can be overlooked or diagnosed late, not only because of patient behaviour but also due to some physician-related reasons, since other diseases are not considered at first.

In conclusion, as in the current case, the fear of the public and healthcare personnel during the COVID-19

pandemic, and the neglect of other diseases may cause more harm than the virus itself.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.


Ethics approval

This article does not contain any studies with human participants or animals performed by any of the authors. Written consent for publication was obtained from the family.

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