ingly common here due to the increase in cases in Spain in recent years.[4] There are few reported cases of *M. malmoense*, the prevalence of which varies widely from country to country, with the highest figures in northern Europe, although over the years new cases of disease have appeared, with the first case in South Korea described in 2015 and the twelfth in France in 2017.[5]

Pulmonary infection due to *M. malmoense* is difficult to diagnose.[6] *M. malmoense* has been shown to have a greater tendency to present major cavities and air-fluid levels in comparison with *M. tuberculosis*,[7] although these differences are not sufficient for diagnosis. Some studies have found a higher prevalence in males, with a mean age of 58 years, with infection limited to the upper lobes in some 30% of cases.[8]

It is necessary to tailor the treatment in each case, as no single established regimen exists. A review published in 2016 suggested treating with isoniazid, rifampicin and ethambutol, with or without fluoroquinolones/macrolides[9], for at least 12 months after sputum cultures have become negative.

The growing detection of these mycobacteria compels us to think of them as disease-causing agents. Increasingly, studies are being conducted such as that by Vande Weygaerde et al.,[10] but we cannot forget that the difficulty of diagnosing diseases caused by *M. malmoense* and other non-tuberculous mycobacteria lies in the cross-cutting interpretation of microbiological, radiological and clinical data.

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Febrile syndrome upon return from the tropics during the COVID-19 pandemic☆

Síndrome febril al regreso del trópico durante la pandemia de COVID-19

Any febrile syndrome upon return from travel to a tropical region is malaria until proven otherwise.[1] Fever is one of the most common reasons for consultation for travellers. It is an important warning sign of potentially severe disease that compels us to establish a diagnosis and quickly treat certain diseases that require urgent care, such as malaria.[2]

In the differential diagnosis of fever in travellers, it is essential to know which regions they have visited and at what time of year. The activities undertaken in the location they have returned from must be analysed and investigated in order to individually assess the risks. Medical history and epidemiological context are of even greater importance in these patients, as it is vital to confirm that correct antimalarial prophylaxis has been used and that their vaccination status was up-to-date prior to travel.[3–5]

According to recent data published by the World Health Organization,[6] there were 228 cases of malaria in 2018, with the agent most frequently implicated in Sub-Saharan Africa: *Plasmodium falciparum*. Since 2010, there has been a reduction in incidence globally. However, there is still long way to go, especially in terms of prevention, with immigrant patients and those returning from areas where malaria is endemic after visiting friends and relatives (VFR) accounting for the majority of cases of imported malaria in our country. European countries continue to have the highest burden of imported malaria in the world (70%). According to official data published in a meta-analysis in 2017 and analysed by Mischlinger et al. in 2020, France has the highest average number of cases per year (2169) followed by the United Kingdom, Italy, Germany and Spain (with 374 cases per year on average).[7,8]

We present the case of a 46-year-old male patient, originally from Mali and resident in Spain since 2001. He was previously healthy with no personal history of interest. He is a seasonal worker, a fruit and vegetable picker. He had not returned to his country of origin until nine months ago, when he went to visit friends and relatives (VFR). In spite of having received travel advice prior to the trip, he did not take antimalarial prophylaxis.

Due to the declaration of the COVID-19 pandemic, the patient could not return to Spain until 27 August 2020, when he returned by plane, landing in Almería. Five days after returning, he began to experience fever each evening, headache, epigastric pain and generalised arthromyalgia, and consulted a doctor in the emergency department of our hospital.

After an initial assessment, a basic blood test was ordered, which most notably revealed: hyperbilirubinaemia (2.93 mg/dl) with elevated indirect bilirubin (1.93 mg/dl), hyponatraemia (sodium 129 mEq/l), hypokalaemia (potassium 2.9 mEq/l), ele-

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vated inflammatory parameters (C-reactive protein: 259 mg/l and procalcitonin 60.71 ng/mL), normocytic anaemia (haemoglobin 116 g/l, mean corpuscular volume [MCV]: 80.9 fl), lymphopenia (730 lymphocytes/mm^3), thrombocytopenia (30,900 platelets/mcl) and coagulopathy (prothrombin activity 70%, INR 1.27 and D-dimer: 12,351 ng/mL).

The chest X-ray revealed a faint and predominantly peripheral bilateral interstitial infiltrate, and a swab test for detection of SARS-CoV-2 by polymerase chain reaction (PCR) in nasopharyngeal exudate yielded a positive result.

With the initial diagnosis of COVID-19, the patient deteriorated clinically and in tests, tending toward hypertension and vomiting. In this context, it was vitally important not to forget, even in spite of the COVID-19 diagnosis and clinical and radiological compatibility, that the patient had travelled from an area where malaria is endemic. Moreover, this was a febrile syndrome upon return from a tropical country, accompanied by anaemia, hyperbilirubinaemia and thrombocytopenia.

A rapid immunochromatographic test (Malaria Ag Pf/Pan, Standard Diagnostics, Inc.®) was performed urgently, with a positive result for detection of *Plasmodium falciparum* antigen and common antigen. Immediately following this, a smear test was performed in peripheral blood, identifying two ring stage *Plasmodium falciparum*-type intraerythrocytic parasites with eccentric localisation and multiple parasitisation in a proportion of 4.5%.

After an initial assessment by the intensive care unit concerning the severe clinical (prostration and hyperbilirubinaemia) and parasitological (parasitaemia >4% in a semi-immune person) criteria, the patient ultimately received treatment with weight-adjusted dihydroartemisinin–piperaquine for three days with very good tolerance.[9,10] The follow-up smear at 24 h showed a reduction in parasitaemia to below 1% and no parasitaemia was visible at the end of treatment. The gradual clinical improvement was accompanied by a resolution of symptoms.

With regard to COVID-19, the patient remained asymptomatic with clinical and radiological resolution without requiring supplementary oxygen therapy or other symptomatic treatment. Serology testing for SARS-CoV-2 was performed using ELISA and CLIA with seroconversion on the eleventh day from the first SARS-CoV-2 PCR test in nasopharyngeal exudate, which remained positive at discharge. We do not know what impact SARS-CoV-2 had on the evolution of the severe malaria, nor the possible influence of the artemisinin-based antimalarial treatment the patient received. Gendrot et al.,[11] having demonstrated activity *in vitro*, propose that antimalarial combinations at high concentrations in lung parenchyma may be useful as prospective COVID-19 therapies.[11] Given the lack of reported cases of SARS-CoV-2 and *Plasmodium falciparum* co-infection in the literature, this hypothesis will need to be addressed by future research studies.

We must not let down our guard in the treatment of imported disease, even in pandemic times, as rapid action and early diagnosis is vital in a medical emergency such as malaria.

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Eosinophilia and abdominal pain after severe pneumonia due to COVID 19☆

Eosinofilia y dolor abdominal tras una neumonía grave por enfermedad por coronavirus 19

Immunosuppressant treatments are being used frequently in the context of the coronavirus disease 2019 (COVID-19) pandemic. These treatments can predispose to the reactivation of infections that had remained asymptomatic.

We present the case of a 70-year-old male patient who sought treatment at a tertiary hospital in the Community of Madrid in April 2020 in the context of the SARS-CoV-2 pandemic. The patient's only medical history was hypertension, in treatment with losartan-hydrochlorothiazide. The patient was of Ecuadorian origin, resident in Madrid since 2008, returning to his country for just a single visit in 2016. Specifically, the patient had lived in the rural Guayaquil area, and during his childhood had performed agrarian tasks and often walked barefoot. He later worked as a metalworker in a car factory, an occupation he currently continues in Spain. He came to the hospital presenting with a dry cough, fever, dyspnoea

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