

COVID-19 pandemic experience of the management of outpatient rural population from the Sierra Sur de Oaxaca, Mexico

Experiencia del manejo de la pandemia de COVID-19 en población rural ambulatoria de la Sierra Sur de Oaxaca, México

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To the editors,

From March 2020 to March 2021, 1034 adult outpatients with COVID-19 were attended in Miahuatlán de Porfirio Díaz, Sierra Sur, Oaxaca. They presented with fever, headache, shortness of breath, dysgeusia, anosmia, and deterioration in the general condition. As, at the beginning, there were no molecular diagnostic and serological tests for COVID-19 in the rural setting, the COVID-19 Detector Flask App was used¹. In this application, the image of a chest radiography or tomography is introduced, and the probability of COVID-19 is estimated. It was correlated in 93% to the result of the real-time polymerase chain reaction (qRT-PCR) test. Another marker used was the palatopharyngeal enanthem, pathognomonic for SARS-CoV2, which was correlated to qRT-PCR in 100% of the cases². These allowed the infection to be diagnosed within the first 3-4 days following its onset. Fifty-two percent of the population attended were type 2 diabetic patients, and the metabolic monitoring of blood glucose at 70-100 mg/dl was simultaneously initiated in them. The drugs with antiviral activity available for the infection were ivermectin, hydroxychloroquine, and azithromycin (Fig. 1). Ten percent of the cases developed bronchopneumonia and H₁N₁ influenza virus co-infection, which was

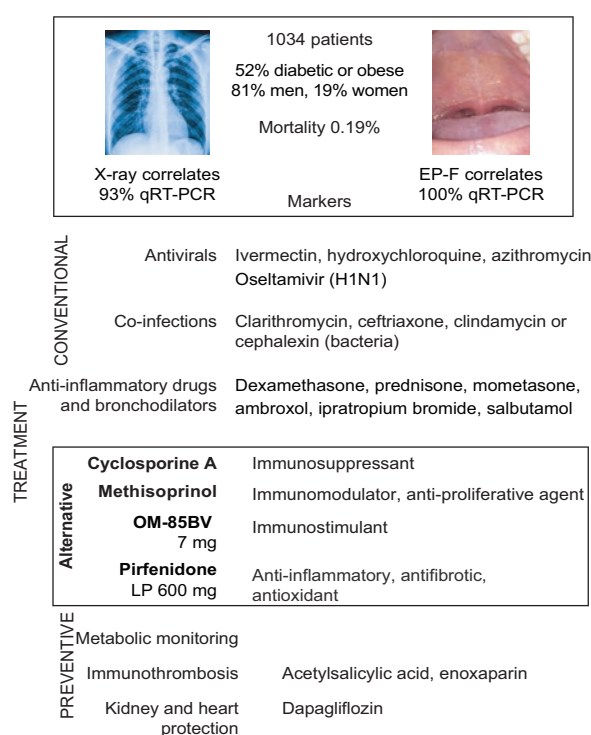


Figure 1. Summary of treatments for COVID-19. We emphasize the importance of the markers, which made an early diagnosis possible. Although more than half of the population was diabetic (high risk), complications and mortality were highly reduced by the simultaneous initiation of antiglycemic therapy. Immunomodulators (alternative therapy) were administered when there was no clinical improvement after 3 days of steroid use in patients with asthma or fatty liver. EP-F: palatopharyngeal enanthem; qRT-PCR: real-time polymerase chain reaction.

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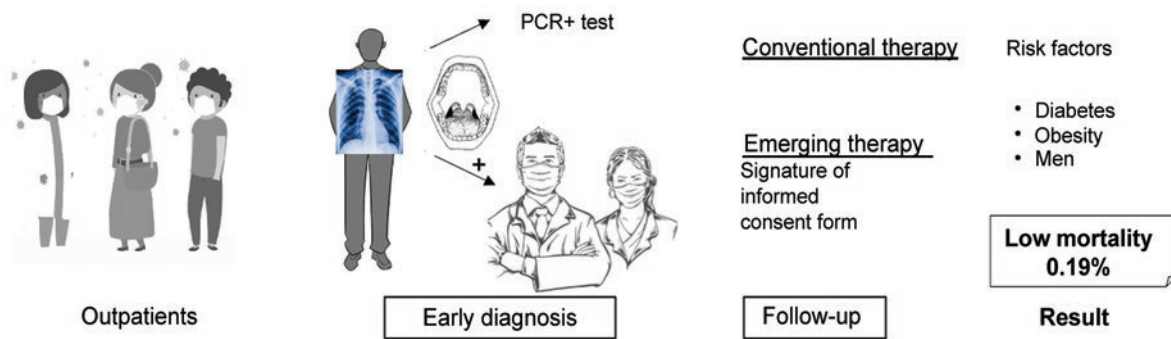


Figure 2. COVID-19 patients follow-up in a rural setting.

managed with oseltamivir, and 5% presented bacterial co-infection, which was managed with clarithromycin, ceftriaxone, clindamycin or cephalexin. For the cytokine storm, dexamethasone, prednisone, methylprednisolone, ambroxol, ipratropium bromide, and albuterol were used. Eight percent of the patients did not show any response by the third day of treatment, and emergent therapies, such as immunomodulators, cyclosporine A (5 mg/kg/24 h), immunostimulants, methisoprinol and OM-85BV were used for up to 7 days³ (Fig. 2). Pirfenidone⁴ and OM-85 BV (Broncho-Vaxom®) were used simultaneously in three patients with chronic asthma, fatty liver, and gallstones. The symptomatology was reduced after 7 days, with an average oxygen saturation of 96%. Acetylsalicylic acid and enoxaparin were used to prevent immunothrombosis⁵. Dapagliflozin was used for kidney and heart protection, given its effects on reducing renal damage and cardiovascular risk⁶.

In conclusion, the experience in the COVID-19 pandemic management in a rural setting in the Oaxaca State is presented. In spite of the lack of appropriate resources to provide healthcare, a low mortality rate was achieved, by means of timely detection through images and clinical markers.

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Conflicts of interest

The authors declare no conflicts of interest.

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