



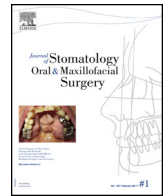
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## Images

# Peri-oral symptoms of immunodepression caused by COVID-19 infection

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## Clinical case

A 89 years old male patient was admitted to emergency department for acute respiratory distress: suspicion of covid 19 infection.

His initial biologic sample found an hyperleucocytose  $21,6 \times 10^3/\text{mm}^3$  with polynuclear neutrophilic at  $19,4 \times 10^3/\text{mm}^3$  and a lymphopenia at  $580/\text{mm}^3$ . Low levels of LT CD4 and LT CD8 with high level of IL-6 and IL-10 were found.

The thoracic CT scan showed diffuse alveolar condensations in the bases with bilateral opacities in frosted glass areas and condensations in nodular bands. A probabilistic antibiotic therapy (Claforan – rovamycin – tamiflu) and corticosteroid therapy at 120 mg/day IV was introduced.

Eleven days after the respiratory symptoms, multiple peri-oral and intra-nasal crusts with bleeding on contact were reported (Fig. 1). In the endo buccal level, we found ulcerative plaques on the both lips and in the internal oral mucosa (palate, cheeks).

The microbiologic confirm the diagnosis: PCR COVID-19 positive, HSV-1 PCR positive and fungal culture in the throat found *Candida lusitania*.

The others analysis return: bacterial negative blood culture, Influenza A, B, RSV, rhinovirus, enterovirus, HSV 2 and legionella antigenuria were negative.

The therapy was adapted with Aciclovir 250 mg and Fluconazole for 14 days with local wound care: hydrogen peroxide mouthwash.

This case highlights that atypical ulcerative HSV infection can present on the background of undiagnosed immunosuppression provoked by COVID-19 infection. Patients with immunodeficiency are at higher risk of developing a severe HSV infection with extensive and aggressive symptoms.



Fig. 1. Initial bleeding crust.

There is rapid and generalized lymphopenia in patients with SARS during the acute phase of infection, which is in distinct contrast to the proliferative responses seen in HIV-1-, CMV-, or EBV-infected patients.

We supposed that COVID-19 pneumonia in our patient induced immunosuppression which promoted the development of opportunistic infections such as an atypical ulcerative form of oral herpes recurrence and oral candidiasis.

## Contributors

All authors contributed equally to the manuscript.

## Conflict of interest

None.

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