

**Clinical Image**

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**Severe herpes-simplex-virus-1-reactivation during severe SARS-CoV-2 infection****Johannes Kalbhenn<sup>1\*</sup>; Barbara Zieger<sup>2</sup>; Federica Casetti<sup>3</sup>**<sup>1</sup>Department of Anaesthesiology and Critical Care, Medical Center, University of Freiburg, Faculty of Medicine, University of Freiburg, Germany.<sup>2</sup>Department of Pediatrics and Adolescent Medicine, Medical Center, University of Freiburg, Faculty of Medicine, University of Freiburg, Germany.<sup>3</sup>Department of Dermatology and Venereology, Medical Center, University of Freiburg, Faculty of Medicine, University of Freiburg, Germany.**\*Corresponding Author: Johannes Kalbhenn**Department of Anaesthesiology and Critical Care,  
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**Introduction**

We present the case of a 59-year-old female patient with severe Coronavirus Acute Respiratory Distress Syndrome (CARDS) admitted to Intensive Care Unit (ICU). Prior to the SARS-CoV-2 infection she had no other medical problems besides chronic arterial hypertension. Endotracheal intubation became necessary. Between five episodes of therapeutic prone positioning during the mechanical ventilation, swelling of the lower lip was observed. Local pressure ulcer caused by the endotracheal tube and lip edema were suspected and treated with dexpanthenol ointment. Swelling increased and a cluster of inflamed vesicles appeared on the lower lip, rapidly affecting the whole labial region, chin and décolleté. These efflorescences were transforming into an enlarging haemorrhagic and necrotic crust, which secondarily impetiginized on the lower lip (Figure 1A). A smear

test proved Herpes Simplex Virus type 1 (HSV-1) DNA. Serum HSV-IgG-antibody testing indicated a chronic infection and isolation of active virus revealed HSV-reactivation. Systemic acyclovir therapy (200 mg five times daily) was started and continued in a reduced dose for 108 days. Pharmacotherapy was stopped after negative PCR results. The patient already reported diffuse hair loss as a typical side effect of acyclovir. Topical antiseptic octenidine treatment and local care with lip balm and dexpanthenol ointment supported healing (Figure 1B) resulting in inner cleft of the labial mucosa (Figure 1C) and residual scars (décolleté: Figure 1D).

Long term duration of dermatological signs and symptoms of COVID-19 with urticarial and morbilliform as well as papulosquamous eruptions and pernio have been described [1]. However, besides these lesions other virus-infections and virus-

reactivations presenting with similar efflorescences must not be missed. Severe and multilocular forms of viral reactivation are usually seen in immunosuppressed patients [2]. This report underlines the immunosuppressive effects seen in critical ill COVID-19-patients, [3] which can also result in reactivation of viral activity [4]. We identified Herpes-Simplex-Virus type 1 (HSV1)-reactivation in several critical ill COVID-19 patients, in some cases complicated by viraemia, HSV1-ceratitis and even HSV1-encephalitis. Apart from the wide spectrum of skin manifestations in association with SARS-CoV-2 infection, possible reactivation of chronic virus infections must therefore be considered as early diagnosis and treatment may prevent patients from a protracted, painful and severe course.

#### Authors' contributions

JK: pictures taken, writing of the manuscript, designed figure, literature research.

BZ: literature research, writing und revision of manuscript.

FC: pictures taken, literature research, writing und revision of manuscript.

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Figure 1: