

THE CASE OF COVID-19 WITH ATYPICAL PULMONARY LESIONS AND A LIFETIME HISTOLOGICAL EXAMINATION

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Abstract

The case of atypical destructive pulmonary lesions associated with the COVID-19 is presented in 42 years old man without significant comorbidity. COVID-19 was not confirmed by naso-pharyngeal smear PCR test at 7th and 28th days of the disease, and by serum SARS-CoV-2 antibody at 11th and 29th day. Chest computed tomography demonstrated the pattern of bilateral multifocal pneumonia with infiltration and cavitation in the acute phase. The video-thorascopic edge resection of S5 of the left lung was performed on the 34th day of the disease. Mosaic lung lesions were revealed at histological examination: poorly delimited focal infiltrates, severe productive-necrotic inflammation of the microcirculatory vessels, plasma and red blood cell diapedesis, macrophages reaction, disthelectasis zones, microcysts. The development of cysts of various size could be a consequence of post-inflammatory scarring emphysema and distelectedasis with dilatation of vessels with a damaged wall. IgG antibodies to the nucleocapsid protein of SARS-Cov-2 were detected in blood at day 62 after the onset of the disease. Thus, the patient was diagnosed with moderate COVID-19 with destructive pneumonia, not associated with bacterial / mycobacterial / fungal infection, and with vasculitis, and probable microthrombosis of lung vessels, followed by resolution and development of minor residual fibrotic and emphysematous foci.

Key words: COVID-19, atypical pulmonary lesions, lung cavitation, lifetime histological examination, morphological changes in the lungs.

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