

**SPONTANEOUS PNEUMOMEDIASTINUM IN
AN ADULT MALE WITH BILATERAL
PNEUMONIA.**

COMPLICATION OF COVID-19 OR NOT?

- Case report -



COVID-19

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INTRODUCTION

COVID-19

01

The world is facing a major health crisis due to the Coronavirus infection pandemic, which began with the epidemic in Wuhan, China, in December 2019.

02

Many parenchymal and extra-parenchymal abnormalities due to coronavirus infection have been described by computed tomography (CT).

03

The most common and early manifestation is the presence of parenchymal zones on milk glass, located in peripheral parts, and the appearance of spontaneous pneumomediastinum is an unusual presentation.

04

Radiology stands as a cornerstone in the management of COVID-19 pneumonia, especially in the diagnosis and monitoring of the disease.

CASE REPORT

- ✓ 62-year-old male patient, textile worker, with a negative epidemiological survey, without other comorbidities and chronic therapy, admitted to an infectious ward with a 4-5 day history of fatigue, cough, intense dyspnea, normal body temperature and lung X-ray (bilateral pneumonia).
- ✓ Body temperature was 36.7°C, pulse 90/min and saturation SpO₂=87%. On auscultation: bilateral impaired breathing with basal crepitations.
- ✓ Native CT of the chest showed (Fig.1 and 2): bilateral presence of diffuse zones of milk glass attenuation predominantly in peripheral areas, with free airways and pleural spaces.
- ✓ Real Time-PCR COVID-19 test, three times during hospitalization showed a negative result.
- ✓ After 12 days of hospitalization, treated exclusively with supportive measures, including oxygen therapy, triple antibiotic, corticosteroid, bronchodilator, vitamin, gastroprotective and other symptomatic therapy, the patient underwent a new CT: pulmonary angiography (Fig. 3 and 4), finding free air along the trachea, around the aortic arch as well as in the mediastinum.
- ✓ Conservative treatment and without an indication for surgical follow-up.
- ✓ CT scan of the lungs on day 21, prior to patient discharge: bilateral but more right-sided milk glass zones in significant regression and a small amount of free air in the mediastinum (Figure 5).
- ✓ The patient was discharged in an improved condition, with a saturation SpO₂ = 92% and drug therapy at home.
- ✓ One month later, antibodies for COVID-19 infection were tested in the patient and were present in high titers: IgG = 22.57 (<1.00UA / ml) and IgM = 22.72 (<1.00UA / ml).

COVID-19

- ✓ Male patient;
Typical symptoms;
- ✓ Bilateral pneumonia
and milk glass;
- ✓ Spontaneous
Pneumomediastinum;
- ✓ COVID-19 test negx3
high titers:IgG and IgM

CT images

Figure 1. Bilateral viral pneumonia and milk glass

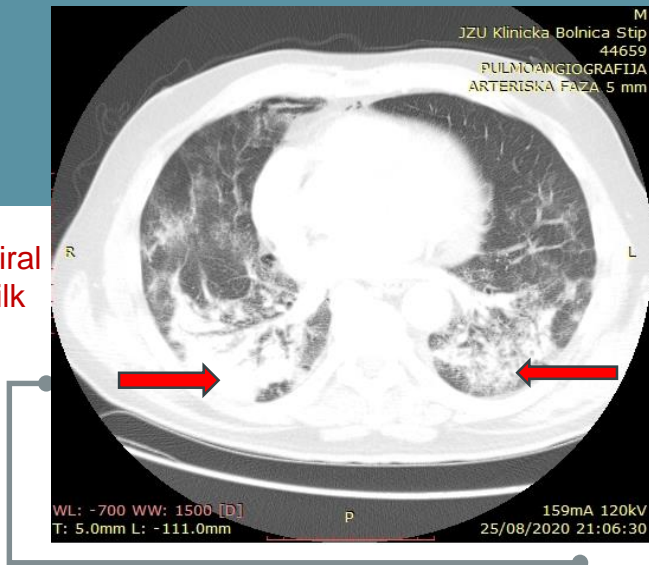


Figure 2. Bilateral viral pneumonia and milk glass

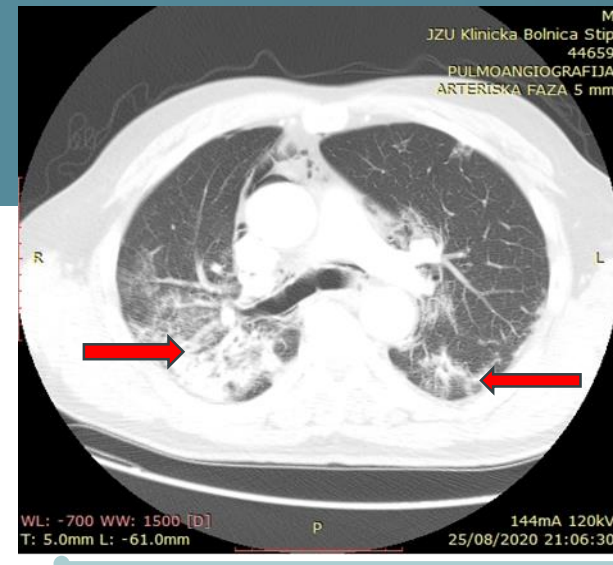


Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

Figure 3,4. Bilateral pneumonia (milk glass) and pneumomediastinum

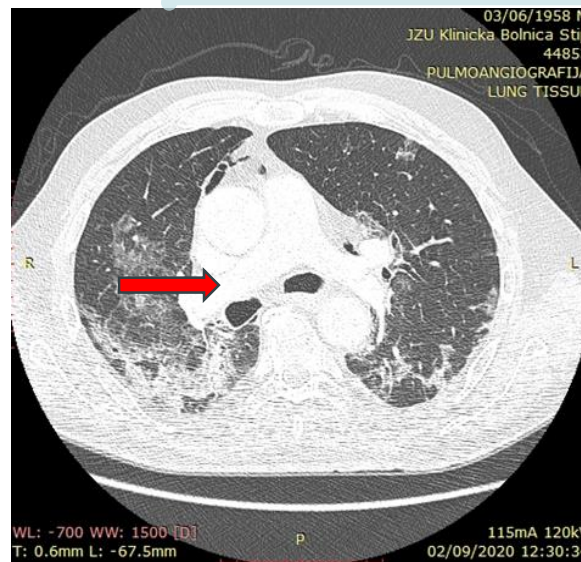
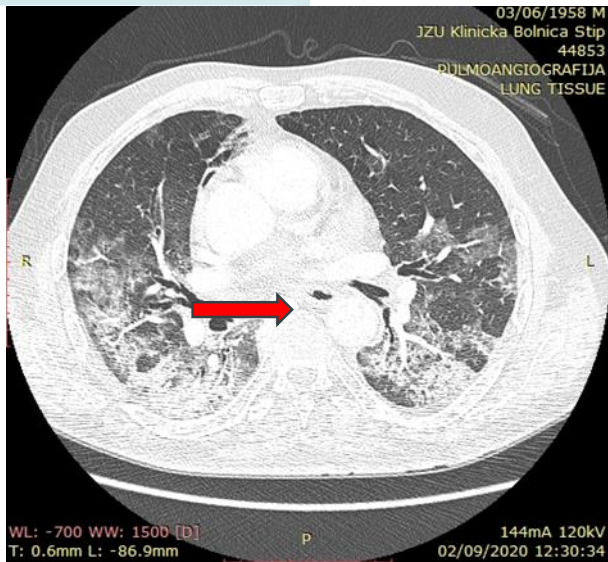
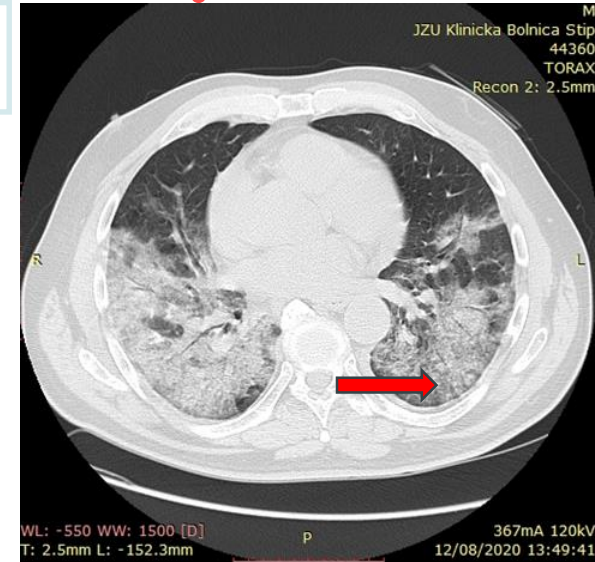


Figure 5. Regression finding



A world map in shades of blue with a network of white lines and circles overlaid. The text 'COVID-19' is written in large, bold, red letters across the top. A red icon of a coronavirus particle is positioned between the 'O' and 'V' of 'COVID'.

COVID-19

CONCLUSION

The appearance of a pneumomediastinum should indicate careful monitoring of the patient whether or not COVID-19 infection has been demonstrated.

There are several papers in the world where spontaneous pneumomediastinum is a common complication of severe acute respiratory syndrome.

Further research is needed to investigate its association with COVID-19 infection.



THANK YOU

WASH YOUR HANDS! TAKE CARE!